THE

Journal of the American Medical Association.

EDITED FOR THE ASSOCIATION BY N. S. DAVIS.

PUBLISHED WEEKLY.

VOL. I. SATURDAY, SEPTEMBER 22, 1883. NO. 11.

ORIGINAL ARTICLES.

EPIDEMIC JAUNDICE AMONG CHILDREN.

BY ALEX. Y. P. GARNETT, M.D., EMERITUS PROFESSOR OF CLINICAL MEDICINE IN THE NATIONAL MEDICAL COLLEGE, WASHINGTON, D. C.

[Read in the Section on Diseases of Children, June, 1883.]

During the summer of 1881, remarkable for its unprecedented heat as well as an unusual and widespread development of malarial fever, embracing sections of the United States rarely if ever before visited by this supposed pathogenic agent, an epidemic of acute jaundice, confined almost exclusively to children under six years of age, appeared in the city of Washington. Between the 2nd of July and the 15th of October six cases of this disease occurred within my own practice, the ages of those attacked ranging from two to six years. For the months of July, August and September twelve other cases were reported to me by other physicians, three within the service of the Central Free Dispensary, the other nine occurring in localities remote from each other, but exhibiting in every essential particular the same features as those which came under my immediate observation. It will be observed that all of these cases occurred within the limited period of three months, when the range of temperature had reached, and probably sustained for many weeks, its maximum point of elevation; but, so far as I have been able to ascertain, none of them were found in those parts of the city supposed to be especially exposed to the influence of malaria or any other mal-hygienic conditions, militating in this respect directly with the theory that the disease owed its origin to any limited local cause. Whilst I have, in common with most of those who have pursued the practice of medicine in Washington for many years, repeatedly met with sporadic cases of catarrhal icterus in both adults and children, it has not hitherto occurred to me to meet with this disease in the form of an epidemic confining its attacks exclusively to young children, a fact which cannot fail to materially enhance its importance in the estimation of the pathologist, as well as the general practitioner of medicine. In the elaborate treatise of Von Scheuppel on biliary diseases, found in the seventh volume of Zeimssen's Encyclopædia, we find but one recorded epidemic of icterus catarrhalis confined to children alone, reported by Rhea. Legg, in his admirable work on the bile, jaundice, and biliary diseases, after tracing the first mention of epidemic jaundice to Hippocrates, devotes three pages of his work to the bibliography of this disease, embracing a period from 1742 to 1872, describes but two epidemics of jaundice confined to children—one at Essen in 1772, reported by Brüning, and one in 1870 at Hanau, by Rehm. During the same period he reports fifty-six epidemics of the disease which occurred among adults. Sir Thomas Watson mentions an epidemic affecting young girls only, and other writers report similar epidemics in which men alone were attacked. It is possible, however, that in this latter instance such conclusions were drawn from observations made at garrisons and camps chiefly occupied by soldiers, the relative number of males and females being too disproportionate to entitle such testimony to much credit. It is to be regretted that in so elaborate and exhaustive a work as that of Legg, embracing the general history of jaundice, its ætiology, symptomatology, pathology and treatment, he should have failed to describe in detail the clinical features which characterized so interesting and rare a manifestation of the disease, as the two epidemics he mentions which were confined to children. He seems to have limited himself to the mere mention of the fact, simply giving name of authors, with the date and locality of the epidemic invasion.

In presenting the history of the epidemics to which the title of this paper refers, I do not propose to include a full description of the symptoms, progress and treatment of each particular case that came under my treatment. It is believed that a very adequate conception of the disease may be conveyed by a detailed exposition of those peculiarities which characterized in a well-defined manner a single typical case. Whilst but six of the cases above referred to occurred within my own practice and came under my immediate notice through each successive stage, I am led to believe that those reported to me by other physicians presented in every essential particular the same clinical features, and may be correctly represented by a report of the following typical case.

CASE I.—A little girl of five years of age, of delicate constitution; nervous temperament; appetite at all times feeble and capricious; subject for the last three years to occasional attacks of malarial fever of short duration, came under my care on July 2, 1881, having been attacked with fever on the previous evening. At the hour of my seeing her, 11 A. M. July 2, she had a pulse of 102; temp. 101.6; headache; tongue slightly furred; bowels torpid;

great repugnance to food; restless and nervous. Prescribed the following powder:

℞. Hydrarg. C. Mit.....gr. iv.
Sacchr. Alb.....gr. xx.
M. ft. chart No. iv.
Sig. one every hour.

Bath at 85°; to be kept in five minutes. Milk diet exclusively. If bowels are not moved in an hour after the last powder, an enema of cold water must be administered.

July 3, 11 A. M. Bowels have beeen twice moved without the aid of an enema. Sleep through the night frequently interrupted; complains of headache. Pulse 92; temp. 99.4; skin dry, and no appetite; discharges from bowels of a greenish-brown color, resembling in this respect those produced by calomel.

℞. Quiniæ bisulph.....gr. xij.
Elix. glycyrrhizæ.....j℥i.

M. Sig. Dessertspoonful every hour, unless it produces nausea, until the whole has been taken. If temperature ranges up and skin is dry within two more hours to be placed in a bath of 80°, and kept in five minutes. Milk diet.

7 P. M. Fever has continued all day. Quinine seems to have increased rather than diminished temperature. Pulse at this hour 108; temp. 102.5. Sponge body every hour unless temperature declines, with vinegar and water equal parts, at a temperature of 70°. If restless and unable to sleep, give potass. bromide, gr. vi, aquæ f.℥ss, well dissolved, and repeat in two hours if necessary. Milk diet exclusively.

July 4, 11 A.M. Slept at intervals through the night, with some decline of fever after 12 M. Took milk and retained it, about 2 oz. at a time four times from 10 P.M to 8 A.M. Dose of bromide of potassium was not repeated. Sponging was also omitted after midnight. At this hour—11 A.M.—pulse 94, temp. 99.2°. Complains still of headache, and some nausea; has repugnance to food, and presents for the first time a decided icterode appearane of skin and conjunctivæ. Urine scant and high-colored. Omit all medicine and give iced gum-water slightly acidulated with lemon juice. Bath at 12 o'clock of 75°. No ingesta until seen again except the iced gum-water. If the temperature increased, renew the sponging as heretofore. 6:30 P.M. Jaundice appearance more marked. Nausea distressing. Pulse 104, temp. 100.8°. Skin dry. Urine abnormally diminished and deeply tinged with bile. Has had one feculent evacuation from the bowels since yesterday, of a light color, possibly occasioned by the exclusively milk diet. Apply compress wet with cold water constantly to thé epigastrium and administer an enema of 4 oz. of cold water at a temp. of 65° every four hours, unless the bowels are moved; in that event omit the enemata. Give iced milk with one-third lime water in dessertspoonful quantities every half hour. An examination of the urine disclosed the presence of biliverdine and bilirubine, and demonstrated beyond question the true nature of the disease.

July 5, 11 A.M. Headache, fever and nausea continue, with the jaundiced appearance of the skin slightly intensified. Pulse 104; temperature 102.4°. Has retained a small quantity of the milk and lime water; no attempt made to give anything else. Directed the cold compress to be continued with water at temperature of 60°. A cold-water enema (temp. 65°) to be administered every four hours if no peristalsis was provoked by its presence. Small quantity of albumen of egg whipped up given with scraped ice, teaspoonful at a time, in addition to the milk and lime water, if retained by the stomach. 6:30 P.M. But little change in general condition since morning visit. Slight increase of temperature and pulse; has retained the iced albumen and a small quantity of the milk. Two small evacuations from the bowels, showing a deficiency of bile. Complains still of the headache, but slept about two hours through the day. Omit after 8 o'clock the enemeta of cold water and the wet compress. Give an enema at 9 P.M. of potass. bromide gr. x, mucilage gum acaciæ ℥ss, to be repeated in three hours if she does not sleep. Continue the same nutriment through the night when she is awake.

July 6, 11 A.M. Patient slept more continuously through the night after the second enema of bromide had been administered, and retained both the milk and albumen when given. This morning some abatement of fever. Pulse 92; temperature 99°. Headache continues, but less severe. Repugnance to food still present, but complains only of nausea when importuned to take nourishment. Slight tenderness on pressure over epigastrium and hypochondriac regions. Bowels have not been disturbed since yesterday, and some increase in quantity of urine, which, however, retains its deep bilious color. Continue sponging with water at a temperature of 80° every hour if not asleep, and add half a teaspoonful of Valentine's meat juice to each spoonful of the milk and lime water, if not rejected by stomach. 6:30 P.M. No material change since morning. Pulse increased two beats, and temperature elevated half a degree. Headache still present, and no increase of nausea. Has passed about four ounces of highly colored urine. Continues to manifest an insufferable repugnance to food or any ingesta; observedly reduced in flesh and strength; somewhat restless and irritable. Administer 8 P.M. the enema of potass. bromide in same strength as ordered last evening, and persist with the milk, lime water and meat juice, adding ten drops of brandy to each teaspoonful given every hour when awake.

July 7, 11 A.M. Condition of patient this morning the same in most respects as at this hour yesterday; perhaps less repugnance to food. Pulse 100; temperature 99.8°; one small semi-fluid motion from the bowels during the night, indicating no increase of biliary elements; passed since last evening's visit up to the prssent hour ten ozs. of urine somewhat improved in color; some headache, but no nausea. Give two teaspoonfuls of the milk and meat juice with twenty drops of brandy every hour. A bath of 80° at noon, and remain in it four minutes. Apartment to be well ventilated, and temperature as low as practicable. 6:30 P.M. Has retained the nourishment through the day. Temperature and pulse very

slightly increased. Passed six ozs. of urine through the day, and slept at intervals aggregating about one and a half hours. Complains yet of headache; no nausea; icterode appearance of skin unchanged. Bath of 80° at 10 P.M., and continue the milk and brandy as directed this morning; to repeat the bromide enæma during the night if she does not sleep without.

July 8. With the aid of the enema of bromide slept almost five hours through the night. Took the milk, brandy and meat juice when awake without discomfort or resistance. Temperature 98.8°; pulse 98; no disturbance of bowels. About eight ozs. of urine passed through the night, but little changed in color. Jaundiced hue of skin and conjunctivæ perceptibly diminished. Complains of no nausea or headache, and exhibits a slight but decidedly improved general condition, but expresses as yet no desire for food. Administer cold water enema at 12. Continue the same nutriment in tablespoonful doses every two hours if no indications of intolerance by the stomach. If temperature rises before afternoon visit, sponge with vinegar and water at temperature of 75° every half hour for three minutes at a time. 6:30 P.M. There has been no rise of fever since morning. Aspect of patient manifestly improved. Bowels moved by the enema, and kidneys acting satisfactorily. Has taken her nourishment through the day without opposition; more composed, and observant of things around her. The treatment for the night the same as that directed for last night. The bromide enema to be omitted, unless absolutely needed by restlessness and inability to sleep. From this date the little patient continued to improve slowly for several days, but steadily, convalescence being fully established by the twelfth day from date of attack.

Whilst the clinical history here presented of an epidemic of this peculiar and unusual character cannot fail to arrest our attention, viewed in any of its aspects, the especial features calculated to awaken interest and invite investigation will be found in the study of its ætiology and pathology. A review of the foregoing report of a purely typical case shows that the epidemic occurred in mid-summer when we had encountered an unusual and protracted period of high temperature, that the cases continued to develop from the 2d of July to the middle of October, when the systems of those exposed to this continued heat had become thoroughly insolated and an opportunity afforded for the liver and other large glands concerned in the function of digestion, located in the abdominal cavity, to become deleteriously impressed, and materially impaired in functional activity, constituting, in my judgment, an important causative factor in the development of this epidemic. That there must have been some other pathogenic agent co-operating in the cases of these particular children, who were the subjects of attack, to produce the disease is not to be denied, since but a small proportion of those exposed to the same degree of heat and general surroundings were affected. The direct connection, however, between the period occupied by the epidemic and the extraordinary high temperature which prevailed at the time, would go far when considered in connection with the acknowledged morbid influence of protracted heat upon the function of the liver, to establish the apparent relations of cause and effect in this particular epidemic manifestation of hepatic derangement. That the occurrence or production of jaundice is closely related to heat will not be positively denied, since its frequent development in hot climates and comparatively rare appearance during the winter season in the temperate zone, sufficiently attests this fact, notwithstanding the contrary statements made by many authors who have written upon the subject. To my mind those epidemics reported by different writers as having occurred in the winter season in temperate climates furnish no contradiction to the opinion above suggested, that heat constitutes an important and active agent in the production of jaundice. A litttle reflection will show that in all such instances referred to by those writers, the subjects of the attack had most probably during the preceding months of summer been exposed to the chances of insolation and their systems, in part, prepared thereby for the subsequent development of the disease. I confess that I fail to find anything in the reports of those epidemics which would induce me to eliminate from the active causes of epidemic jaundice the important and potential one of heat. In discussing, however, the ætiology of this particular epidemic, it is not necessary that I should refer to the numerous and manifest causes of jaundice which have been embraced in the catalogue of ætiological factors by writers upon the subject. Each epidemic reported having been attributed to some specific or local cause and therefore inapplicable, so far as the views expressed by the different authors of these reports are concerned, to the one which furnishes the subject of this paper, I say inapplicable for the reason that it is not proposed to discuss the subject of jaundice in its general character, embracing its relations to the numerous pathological conditions with which it is often associated as cause and effect, such an effort would necessarily lead us into a broad and limitless field of speculation and debate far beyond the narrow limits prescribed for this monograph. Confining myself, therefore, to a consideration of this specific epidemic, and eliminating the numerous well recognized causes of sporadic or general jaundice, I shall briefly refer to the suggestions already thrown out as to the special causal agent which operated in a more or less potential degree to produce it. That the genesis of jaundice is in some way dependent upon hepatic agency seems to be an admitted fact both by ancient and modern writers. In what particular manner or mode this agency is exercised appears, however, to have furnished a subject for endless controversy and discussion, and presents at the present time difficulties which the modern advances of organic chemistry and practical skill and progress in the use of the microscope seem rather to have enhanced than removed. The short period allowed for the presentation of this paper does not permit even a passing notice of the numerous and diverse theories which have been advanced, although they

may represent the views entertained by the most distinguished and progressive of our modern pathologists. I am, therefore, constrained to confine myself to a brief exposition of such crude explanatory hypotheses as have occurred to my mind regarding the modus operandi of hepatic influence in the production of this particular epidemic.

Among the numerous causes of jaundice reported by authors, we find mentioned gastro-duodenal catarrh, extending into the bile ducts, producing in various ways obstruction to the escape of bile; diminished circulation of blood in the liver, and a consequent abnormal diffusion of bile; and diseases of the *nervous system*. That jaundice is frequently produced by the first mentioned cause, no pathologist of the present day will deny. The primary morbid impression having originated in such instances in gastric or gastro-duodenal catarrh is readily transmitted along the lining membrane of the "pars intestinalis" of the common duct to those of the gall bladder and liver, resulting in obstruction and a diffusion of bile pigment in the general circulation. I am not prepared to admit, however, that the epidemic under consideration could have originated in any such manner. The clinical history above detailed militates directly with such a theory. By reference to that, we find that the icterode appearance of the skin conjunctivæ and other positive manifestations of diffusion of bile pigment in the general circulation, antidoted the symptoms of gastric disturbance, and as the nausea and repugnance to food became the most pronounced features of the case, we are justified in concluding that no irritation of the stomach or duodenum existed prior to the development of these two significant symptoms, and consequently such irritation must be regarded as a consecutive rather than a primary element in the case. I therefore do not hesitate to discard this mode of invasion of the disease in considering the ætiology of the epidemic. Whilst the theory that catarrhal inflammation of the bile ducts is the most common cause of jaundice, and certainly seems the most popular one with writers and practitioners of the present day, when we consider, in addition to the reason above assigned, the great variety of other causes found to occasion a diffusion of bile pigment in the blood and the peculiar icterode appearance of the skin, entirely independent of any morbid condition of the larger bile ducts, we find no difficulty in recognizing the theory of mechanical obstruction as inapplicable in this case. In further support of this view, we may cite instances of jaundice produced by poisons, traumatism, bites of serpents, icterus neonatorum. Jaundice produced by nervous influences, excessive secretion of bile in which that fluid not having undergone decomposition or oxydation, as suggested by Murchison, and eliminated through the kidneys and lungs, as in health, is taken up in its normal state and carried along with the blood to the tissues.

Reverting to the influence of the nervous system as one of the causative agents in the genesis of jaundice, it seems to me that we here have a probable solution to the ætiological difficulty in determining the origin of this epidemic. That the function of hepatic secretion, as well as that of other glands, is directly controlled by and under the dominion of the nervous system, no one will deny; and that this controlling power of the nerves is frequently exercised under the emotions, is equally true. This is abundantly shown by the excessive lacteal secretion of the mother at the sight of her suckling infant, the augmented salivary secretion by the savory odor of food. Not only is this influence of the nervous system over the function of secretion thus quantitatively demonstrated, but under certain mental excitements or morbid impressions the function becomes qualitatively deranged and deleterious to the animal economy. We see this manifested by the effects of grief upon the mammary secretion of the nursing mother; the influence of anger upon the saliva of animals, transforming a harmless secretion into an active poison. Evidence is not wanting to prove that even rabies canina has been produced by the bite of an enraged dog which was in all respects healthy; sudden change of color of the hair by emotions of fear, and many other instances of a similar nature which it is not necessary to mention. Accepting these physiological truths, we can readily conceive how certain morbid impressions made upon the sentient extremities of the afferent nerves, and transmitted to the ganglionic centers, may influence the function of an organ so richly supplied with nerves and so important as the liver; one so intimately concerned with the supreme office of elaborating and metamorphosing the nutritive material introduced in the system, and adapting it to the separate offices and functions for which it is destined. We all know that the metabolic activity of the hepatic cells in the production of bile, is in direct proportion to the plus or minus degree of blood pressure. Any agent, therefore, disturbing for a given period of time the normal physiological equilibrium of blood pressure in this organ, directly and consequentially affects the secretion of bile. This fact has been repeatedly demonstrated by experiments made upon animals, showing, for example, that a section of the splanchnic nerves causes immediate dilation of the hepatic and other abdominal veins, followed by a diminution of arterial blood pressure and an increased flow of blood into the portal vein. The normal blood pressure, and consequently the normal flow of blood through the liver, is in a great measure dependent upon the active tonicity of the arteries imparted to them by the vaso-motor fillaments furnished to them from the sympathetic system. It may readily be conceived, therefore, how completely the generation of bile is regulated through the direct influence of this mysterious nerve, and how easily those causes which disturb its integrity, aberrating the normality of its office, may result in derangements of hepatic circulation, followed by hyperæmia and inflammation of the liver. Among those causes, as I have already indicated, I am disposed to regard heat as playing an important part.

We are told that the French troops stationed in Pavia during the Italian wars were affected with an epidemic of jaundice, which commenced in August and terminated in October; that the heat was un-

usually intense, and that the livers and spleens of all those who died were found enlarged and congested. Kircksig, describing the epidemic of jaundice in Suden Scheid in 1794, says that it raged from the end of August to the end of November; that the months of June, July and first half of August were characterized by prolonged heat, and dryness, followed by a sudden change of temperature and fall of the thermometer about the middle of August—the appearance of the epidemic commencing co-incidently with this decline of temperature. Innumerable instances of a similar nature, showing the direct connection of protracted heat with the existence of jaundice, might be cited, accomplishing such results no doubt by certain reflex actions transmitted from the sensitive surfaces through the cerebro-spinal and sympathetic systems to the involuntary muscles and secreting organs. The hepatic congestion and cholæmia found to exist in women during the catamenial presence, disappearing and returning cotemporaneously with the menstrual flow, furnishes another illustration of the effects upon the liver of reflex nervous excitation originating in the nerves of distant parts. Assuming then that the molecular processes going on in the protoplasm of the hepatic cells, necessary to the formation of bile pigment or the transformation of hæmoglobin into bilirubin, can be morbidly influenced by a disturbed condition of other organs through nervous connections, and that external causes—such as heat and cold—are capable of exerting such a power through the nerves of the integument, we are met by the question, in what manner does the deleterious agent of heat operate upon those nerves which control the function of the liver, to effect such derangement of its normal office?

Scientific research and experimentation have not yet supplied us with positive data upon which we can base a conclusive reply to this question. We can only fall back on the statements already made, and resting upon repeated experiments which demonstrate the effects upon the vascularity of the abdominal organs, including the liver, resulting from a division or a lesion of certain branches of the sympathetic nerve and by a legitimate method of logical deduction assert our belief in the theory that those branches of the sympathetic supplying the vessels of the liver, and influencing directly and potentially its office of secreting bile, when subjected to the protracted excitation and subsequent exhaustion of protecting the animal economy from the deleterious effects of prolonged heat, become partially paralyzed and are no longer capable of preserving through vaso-motor influence the normal arterial tonicity of the hepatic vessels; that this paresis of the arterial coats necessarily diminishes blood pressure and correspondingly increases venous congestion with a diffusion of bile into the circulation, and a consequent condition of jaundice; that such a result may not immediately follow the exposure to heat, but does in many instances develop itself by gradual morphotic changes going on and manifested at some subsequent period.

AMPUTATION BELOW THE KNEE-JOINT IN PREFERENCE TO BRISMENT FORCE IN CERTAIN CASES OF DEFORMITY WITH ANCHYLOSIS. ILLUSTRATED BY TWO CASES.

BY LEWIS HALL SAYRE, M.D., ASSISTANT TO THE CHAIR OF ORTHOPÆDIC SURGERY AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

[Read in the Section on Surgery and Anatomy, June, 1883.]

GENTLEMEN:

In all chronic inflammations of the knee-joint, such as strumous synovitis, white swelling, fungus articuli, etc., there is a reflex muscular contraction, which, unless prevented or overcome by persistent extension and counter-extension during the progress of the disease, will result in more or less serious deformity, generally a partial or incomplete sub-luxation backward with outward rotation, in which position it may be anchylosed by fibrous adhesions, false anchylosis, or by bony fusion, true anchylosis.

In all cases where the disease has entirely subsided, leaving this deformity, if it is possible to separate the patella from its adhesions with the femur, and if there is any movement whatever between the tibia and the femur, it is easier to resort to brisment forcé, even if it be necessary to make subcutaneous resection of the hamstring tendons in order that the leg may be brought into proper position. This operation, followed by the proper after-treatment, frequently results in a useful limb, and not infrequently with a movable joint.

But in cases where the patella is absolutely immovable and the tibia and femur are united by long fusion, it becomes necessary to make a V section through the angle of deformity as suggested by the late Dr. Gordon Buck, of New York, straighten the limb and secure it in that position by anchylosis. In all cases where the limb is of sufficient length to make it useful for locomotion without too great shortening, this is the preferable treatment as it results in a very useful member.

In those cases where the disease of the joint has occurred at a very early period of life, and has resulted in this deformity, the limb below the knee grows much less rapidly than the other. Patients are frequently brought to you in early adult life with the limb very much shorter than its fellow, and by the time they reach maturity the difference in the length of the limbs would make so serious a deformity that an artificial limb would be preferable to the natural one in its shortened condition. In all such cases, amputation below the knee-joint in the manner which I here intend to propose, and which is a modification of Prof. Stephen Smith's amputation at the knee-joint is preferable to resection of the bone, and attended with very much less danger to the patient.

The amputation should be performed by passing the knife from the tubercle of the tibia slightly downward and backward to the popliteal space, making a very slightly curved flap; then passing the knife from the same point on the tibia around the other side of the leg to the popliteal space with a similar curve, meeting your first incision at that point.

These flaps are then dissected up from a half an inch to an inch on either side, according to size of the limb ; a free incision is then made through the ligamentum patellæ at its insertion into the tubercle of the tibia and the remaining soft tissues down to the bone. Then separate the tibia just below its articular facets either by a strong cartilage knife, or if the bony fusion is complete it is preferable to use the saw, in this way the joint is not exposed, and if the Esmarch bandage be used the operation is comparatively bloodless.

The popliteal artery being now secured, the thigh is flexed at a right angle with the trunk ; the wound is then stitched in the posterior part, making a linear incision entirely posterior to the end of the stump, a drainage tube having been inserted making its exit at the posterior portion of the wound at the upper part of the thigh.

If this operation be performed with antiseptic precautions, union, by first intention, can as a rule be secured, and no constitutional disturbance results, and when the wound is healed, the end of the stump, being free from cicatricial tissue, is never subject to irritation by pressure from an artificial limb.

The advantages of this operation are :

1. Much less dangerous than resection of the bone, resulting in much more speedy cure.

2. Resection always results in anchylosis, which prevents flexion of the limb in the sitting posture, which is a very serious inconvenience to the patient, while an artificial limb can be so applied as to be flexed when sitting, and is equally serviceable in locomotion.

3. If the natural limb is so much shortened as to require elongation by an artificial foot, or a very high shoe, the support is very insecure in walking, while the deformity is much more conspicuous than an artificial limb.

4. The advantage of this amputation over those ordinarily used is that the end of the stump is able to bear the weight of the patient without danger of irritation, the cicatrix being entirely behind the limb, and therefore not subjected to any pressure.

Eva L. J., aged 16 ; father healthy, mother always delicate, as has been this child ; seven other children all healthy. When patient was 18 months old an abscess formed at the top of the left knee, which opened at the lower part of the joint. No cause was known for this. The inflammation of the joint continued until she was between 5 and 6 years old, when the leg began to be flexed upon the thigh. One night the limb became flexed at nearly a right angle, in which position it has since remained. There was considerable tenderness of the joint, which was treated by liniments, frictions, etc. No extension was ever used. The patient at present is in fair health. Left limb flexed at nearly a right angle as seen in drawing, Fig. 1, subluxated backward and everted, firmly anchylosed by fusion of the femur, tibia, and patella. The leg below the knee is more than 3 inches shorter than its fellow. For this reason amputation below the knee was decided upon, as a V section through the angle of deformity would result in so great a shortening as to render the limb useless for locomotion without an elongated shoe, and, being at the same time anchylosed, would not have the advantage of flexion, which an artificial limb would give.

Fig. 1.

The modification of Smith's amputation was therefore performed by Dr. Lewis A. Sayre on April 7, 1883, with antiseptic precautions. There were no untoward symptoms, the ligatures coming away on the eleventh day, and the wound being completely closed on the seventeenth day after the operation, so that an artificial limb was applied six weeks from day of operation on which she walked without pain or discomfort. The accompanying photographs, taken one week after the application of the limb, show the condition of the stump and the position of the cicatrix entirely posterior to its end, as well as the ability to stand upon the limb, also that of flexion at the knee while sitting.

Fig. 2.

Fig. 3.

E. G., aged 11, of healthy parents, and always perfectly healthy. When 4 years of age, mother noticed swelling of right knee. This was pronounced white-swelling by the physician, who treated it by blisters and fixation in a box-splint, no extension being used. The limb was retained in the splint for four months, when it was removed, and the knee found to be anchylosed in the straight position. This anchylosis was fibrous in its character, as during the next four or five years the knee became more and more flexed, until it is now fixed at a right angle, with displacement of the tibia backward.

There is slight motion between the tibia and femur, but the patella is firmly fixed. An attempt at brisment forcé was made on April 25, 1883, but it was found impossible to release the patella from its fastenings to the femur, and the operation was therefore abandoned. No trouble followed the attempt at brisment forcé. The limb has been kept immovable after the operation, with pressure on the femoral artery, and cold applications to the joint, and on May 23, 1883, I amputated the limb below the knee-joint in the manner described, separating the tibia at the cartilaginous junction.

A small abscess was discovered in the head of the tibia, just beneath the cartilage. This was thoroughly scraped, and the wound washed with carbolized water. A ligature was placed upon the popliteal artery, a drainage tube inserted, and the wound closed with five stitches and adhesive-plaster strips between them. The operation was performed antiseptically. No trouble has followed, the temperature and pulse having not risen above 100, and very slight pain having been experienced.

Forty-eight hours after the operation the limb was dressed under the spray. No pus found. The adhesive straps were left in situ, but the sutures carefully removed without disturbing the wound, which seemed to be united except at the point of exit of the drainage tube and ligature, when the limb was re-dressed as before.

PÆDIATRIC MEDICINE AND ITS RELATION TO GENERAL MEDICINE.

BY J. B. CASEBEER, M.D., AUBURN, IND.

[Read in the Section on Diseases of Children, June, 1883.]

Many of our most successful practitioners of medicine amongst the *adult* population have made signal failures when called upon to exhibit their skill in the treatment of tender children.

We have often been pained by the remarks dropped from the lips of some physicians whom we were endeavoring to regard as sample practitioners, on account of the indifference manifested, and the slight degree of importance attached to their practice among the children, such as, "Well, you may give a few drops of 'paregoric,' or some 'catnip tea,' or most anything of that kind you may find convenient, as we cannot do much for children so young;" or, "Your mothers or 'old women' can treat young children as well as I or any physician can;" or, "I don't like to treat children, it is so unsatisfactory. They cannot tell how they feel and what is the matter with them, and I never can tell what they need."

To my mind, such remarks (and these are but a few imperfect specimens of those somewhat current in our ranks) indicate a lack of knowledge, or a misconception of the true principles of the practice of medicine as applied to the children, which certainly challenges our sincere attention.

It is a loud cry for *reform* or *re-education*. To my mind, the diseases of children speak as plain a langnage, and require as direct remedies to control them, and as emphatic in their demands as are those of the adult; and when we admit that untutored women or good nurses can judge of the requirements of sick children, and can treat them as well as the educated physician, then I feel that we ought to be honest enough to admit that the same is true in all classes of the sick. To my mind, paregoric, rhubarb, and chamomile are appropriate remedies, when indicated, alike to the child and the adult, and when not indicated would be as much out of place in the one as the other.

The natural language of the child is the true and untarnished expression of facts; while that of the adult, tainted by the prejudice of their own opinions, freighted with the imperfect use of an imperfect language to express their imperfect thoughts, must be taken with a great deal of allowance, and very much of it must be often entirely excluded when making up a diagnosis.

If the intelligent physician will but open his eyes and his ears, his little patient will unconsciously tell him how he feels and what is the deviation from the health standard. If he will but study cause and effect, he will find the indications for treatment just as plainly marked out as in his older patient, that may be very fluent in reciting his pains and aches. The physician practicing rational medicine, and who is governed in his treatment by the indications of each individual case, and strives to meet only the indications that do exist, needs to be versed in the laws and natural language of disease, the laws and standard of health, the true nature and effect of the reme-

dies used, both physiological and toxic; and if he can read these correctly and apply them with judgment, it matters not whether he finds his patient in Maine, Georgia, Pennsylvania, Ohio, Indiana, or California, the same symptoms call for the same remedies, and in the different ages of the patients the same language is to be read, the same indications to be met in the same way; and thus the same skill and judgment is called for, and the man who is really a good physician, and applies the same good common sense in his practice, can do so in one State or age as well as another.

While we believe the above is true, we believe also that the converse is only partially true; for we may, in our treatment of the vigorous adult, fail to skillfully meet the leading indications with their appropriate remedies, yet if we are not too excessive in the use of our misused remedies, our patient, with his strong vitality, may get well in spite of us, but in the tender age of our infantile patient a misplaced remedy might be fatal it its consequences.

We are therefore forced to the conclusion that the diseased children ought to be placed in the care of the *best physicians*, and, if the uneducated women and nurses are to be given work because of their kindness of heart and their good nursing, or even for their experimental knowledge, certainly let it be given them in the realm of the adults, where a neglect or a misapplied remedy is far less harmful.

Let no true physician flatter himself with the thought, much less say, I can do my whole duty to my adult patient, but I cannot successfully treat the children, for it is only the siren song of a false and overgrown conception of *self*.

In our curriculum of studies and in our libraries we have works on the "Practice of Medicine," which means the practice among the adults, and then we have books on the diseases of children and their treatment, written usually by different authors, and they describe diseases so differently and have such different views and modes of treatment, that the student at once infers that it is an entirely different study, and as it requires a different chair in the college (unless connected with the chair of gynæcology or obstetrics), he concludes certainly there is no similarity to general practice, and he enters it as a different study, views it from a different standpoint, and thus is prejudiced from the beginning, and is freighted with false impressions which complicates his labors, retards his progress, and he may feel that to be an *adept* in the one he must be a *failure in the other*.

Let us reason together a few minutes and see if we as a profession are not somewhat at fault in our teaching, or rather in our failing to teach the true similarity of the diseases of all classes, and thus mystify what should be made plain especially to the uniniated but anxious and earnest student.

Take for example pneumonitis in the child and in the adult. The same cause, as sudden change of temperature, under similar conditions of perspiration from prostration or over-exercise, with the inhalation of cold air, may in the child as in the adult produce a congestion of the lungs, and may result in bronchitis or pneumonitis.

In either case there is local hyperæmia; a chill, followed with febrile excitement, more or less intense, and if the sensitive pleura is involved there will be pain in proportion to the degree, and alike in both.

The indications are certainly alike in both—viz., to control the pain, allay the fever, and overcome local congestion.

We meet the first with our opiates, or, perhaps better, with aconite and bryonia, especially if the pain is made more severe by breathing or coughing or any movements, with a tendency to sweat, or if the pain is sharp or lancinating with hot dry skin, asclepias then will be a more appropriate remedy. To meet the second indication, if we have a full bounding pulse, our remedy is veratrum viride; but if it is small, quick, and thread-like we prefer aconite; or if the pulse is sharp, patient restless with sudden startings in sleep; and in the child you will get the shrill cry, and especially if there is elevated papillæ of the tongue, we then use the rhus toxicodendrum. If the secretion of the mucous membranes, and especially of the bronchial tubes, is not sufficient we use ipecac, and if too profuse and much rattling of mucous in the tubes, lobelia is added to the sedative; and experience declares that we can always correct these special symptoms with these special or direct remedies—always if we properly apply them.

The third indication may be met by local applications, as counter-irritation, thus bringing some of the surplus blood to the surface, or by the application of sufficient heat to cause the contraction of the over-distended blood-vessels, and thus enabling them to unload by forwarding the over-supply of blood, assisted by some capillary contractor such as ergot, calabar bean, or better still, in my opinion, by the use of proper doses of belladonna. These remedies are alike appropriate at all ages (except opium, which is seldom admissible in the child, and, I think, of doubtful influence in the adult generally).

Observing the above rules in the early stages of the varied forms of pleuritis and pneumonitis, they can be successfully aborted in a majority of cases.

Yes, I will say more. If it will abort one, it will abort another and another, if under similar circumstances, and if the same symptoms exist and are met by the same skillful application of the same remedies, and are applied in the proper strength and quantity, and at the proper time. This will hold true, no matter what is the patient's name, in what State he lives, or of what age. The real skill in the treatment of any patient is in the reading the exact language of disease by the existing indications, and thus to meet them with exactly the right remedy, given in just the right doses, and the latter often requires greater skill than either of the others. Here, then, good judgment is usually the ranking officer, and should take the command.

Or take, if you please, any of the other numerous inflammations, or any of the diseases which attack all ages of the human family, and the symptoms will be manifestly the same; and as similar indications are met with similar remedies under similar circum-

stances, we are forcibly impressed with the similarity of treatment which is indicated in all ages.

We do not inquire the age of our patient for the purpose of deciding what to give, so much as to decide how much to give.

Indigestions in all ages must alike be met with the same skill in regulating the quantity and quality of appropriate food, with the aid of such digestors as will aid the truant stomach to do its whole duty.

In surgery, dislocations are to be simililarly diagnosed and reduced; fractures also must be similarly placed in apposition and held with their appropriate dressings.

The infectious and contagious diseases are similarly manifested in the different ages of life, and I think no one would argue that the same rules of prevention and treatment should not prevail.

Of course, we must bear in mind that the nerve centers are more easily influenced, as they are less mature, in the child than in the adult, either for good or evil, by disease or medicines, but this will not so much guide us in selecting our remedy, as it will in the manner and power of its application.

I believe, when we entirely rid ourselves, as a profession, from that old and justly condemned habit of treating diseases instead of the patient, and let the pathological symptoms alone suggest the remedy used, then will we have come to the proper mark, and thus have lopped off a large section of worse than useless treatment; for in the tender age of childhood we cannot afford to use any unnecessary medicines, lest they prove detrimental to the best interest of our patient.

One step in the right direction is not sufficient when more is required (as it certainly is in pædratic medicine), for when we succeed in throwing overboard all unnecessary and uncalled for medication, then it is of the utmost importance that what remains to be administered should receive our careful attention, and should not only be in the purest possible condition, but be made as pleasant and acceptable to our patient as is possible.

I am free to admit that I have taxed my skill quite severely and for a long time endeavoring to make medicines pleasant. I have thererore studied to season skilfully, as the good cook would do, by using syrups—peppermint, cinnamon, wintergreen, licorice, ginger-brandy, whiskey, wine, etc. etc.; but could succeed better in pleasing the smell than the taste, and could take solid comfort in the old saying that I would hear repeated to my patient for his especial cheer and comfort, viz: "If the medicine don't taste bad and make you sick, it will do you no good."

I assure you I was greatly encouraged when I had the opportunity to make a reputation by furnishing nauseating and disgusting medicines to the sick, for I had then learned that a little medicine mixed with syrup, and flavored with one of the essential oils, would answer the purpose admirably, and in that I felt quite proficient. All went well until the homœopaths began to invade my territory, and soon my old patrons would say to me, "Doctor, I was sorry I could not have called you when my children were sick; but they had heard that Dr. —— gave such pleasant medicine, and would hear to nothing else than to have him called; yes, and they took his medicine so nicely, and got along very well."

It was not very long until I, with my fellow-practitioners who had "subdued the forest" and tamed the wilderness, learned that the grown-up children, and even the old folks, began to relish a better medicine, and would prefer to take a pleasant potion every 20 or 30 minutes, rather than a dose of old genuine medicine, not pleasant to the taste, every two or three, or even four hours. But I cannot stop here to give you in detail the anxious hours, the earnest study, and the full reasons for the steps taken and the success attained, in finding a way to prepare medicines that was not disgusting, but rather agreeable to the tastes and stomachs of our patients.

Suffice it to say that with us the battle is over; "medicine" is triumphant, and the homœopaths have departed for healthier climes, where physicians continue to disregard the stomachs of their patients, and continue to give disgusting potions. We now ask our druggist for pure, fresh medicines, free from the worthless gums and dirty sediments (and we get them); and then we can dispense them in pure water, God's only beverage to the thirsty, so that a spoonful will contain the desired dose of medicine, and this is rather grateful than otherwise to our patients, whether they be large or small. If we desire a condiment, we can use the distilled glycerine, and possibly, when it will do no harm and is desirable for the taste, a little of the purest white sugar can be used, or some desirable mint water may sometimes be preferred, and thus medical men can sustain amicable relations with the community, and even with the children. Their little stomachs are not so bloated with fermenting syrups, and the consequent colics are not so exciting our nurses into a constant demand for worm medicines, castor-oil and turpentine, etc.; but our little patients can have their rest, and even the physician is permitted to enjoy his repose until morning.

And now, in conclusion, let me ask my fellow-laborers in our beloved profession, in the interest of our own honor and usefulness; in the interest of the dear children we are called to administer unto, and in the interest of the anxious and earnest students seeking to know the geography of the whole field of medicine—I say in the interest of all these, let us endeavor to appreciate and teach the true relation existing between the child and the adult; the sprout and the full-grown tree, and forever divorce this branch of our practice from the unnatural relation heretofore forcibly maintained between it and gynæcology and obstetrics. And let us wake up to the realization of the fact that there is more real science in the proper practice of medicine among the children, where we read the nature, expression and influence of disease by the physical signs and rational symptoms, unaided by the verbal language of our patient; and also, that the treatment of children calls for the best efforts of the most scientific and skillful of our ranks, and that any indifference to or inclination to shift responsibility of their treatment, is only an evidence of our

weakness in this direction, and our non-appreciation of and unwillingness to perform our whole duty.

DISCUSSION.

Dr. Sennott, of Ohio, said he was interested in the treatment of diseases of children, on account of the action of medicines being untrammeled by mental predispositions.

Dr. Ulrich said children were shamefully abused by over-feeding and under-clothing, and ignorance regarding temperature, etc. He would hail with joy a revolution in the dress of the newly born; make the new dress of woolen material, loose, easily applied, etc.; would banish overlong skirts, pins, and belly bands. The dress now used for infants in this country was a torture, and the sooner a common-sense dress was adopted the better for future generations.

Dr. Boothby, of Wisconsin, agreed with Dr. Ulrich in the matter of dress, but would go further back in urging a revolution, back to the first bath, before any dress was used except a blanket. He would not allow a child to be bathed till from six to twelve hours had elapsed from its birth; would have the child thoroughly oiled, wrapped in soft, warm flannel, and laid by the side of the mother, and would not have mother or child disturbed for from a quarter to a half day; had seen fatal results from carelessness in bathing a weak babe in a cool room, and wrapping in cotton cloth; was particular to see that the babe was wrapped in flannel previously *warmed und dried*, and if because of circumstances it cannot be laid with the mother, keep near a warm stove.

Dr. Casebeer said, in closing the discussion, that what the profession needed in the medication of children, was pure and reliable medicine, given in water when possible, well diluted, small doses often repeated being generally preferable, and where this was followed by good judgment in other minutiæ, the regular physician would be preferred and employed many times where now the Homœopath is called.

UNITY OF DIPHTHERITIC AND MEMBRANOUS CROUP.

BY ALEX. HARRIS, M.D., VIRGINIA.

[Read before the Section on Diseases of Children, June, 1883.]

Because of the diverse views held by the profession at large, and especially the members of the district society which I have the honor to represent in part in this Association, I feel great interest in the discussion of the question, are Diphtheritic and Membranous Croup—the "Cynauche Trachialis of Cullen," the "True Croup" of other nosologists—convertible terms, modified only by difference in local expression, or are they distinct diseases, requiring opposite modes of treatment?

In the hope, then, of eliciting a discussion of this subject, which may at least secure a uniform therapy, I will assume the affirmative. Ours does not claim to be an exact, but a progressive science. At one time vensection was regarded the "sheet anchor" in the treatment of Asiatic cholera. Some of us have cured pneumonia—the cases amenable to the *vis medicinæ* of that day—by "blood-letting to deliquium animi," tart-ant in one-half grain doses, ptyalism, and the absolute diet; and, if I mistake not, the estimated mortality under that treatment was one in three. Think of the host of victims to apoplexy which large bleedings and active catharsis did not cure! Some of us remember the frequent blood-lettings, the close room and light diet treatment of phthisis pulmonalis, and the "galloping consumption" of that day. I need but mention them, the vastly reduced mortality in all these diseases secured by an opposite therapy, to illustrate the advance made in therapeutics, May it not be claimed that the facilities for, and certainty of, diagnosis have advanced *pari passu?* How many of us remember when cough, quick pulse, with emaciation were the diagnostics of phthisis pulmonalis; the "stitch in the side," pleurisy; brick dust expectoration, pneumonia, etc. Lately we depended upon general symptoms and physical signs to diagnose membranous laryngitis. Now we have the laryngoscope and microscope.

With this introduction I proceed to the consideration of the history of Membranous or Diptheritic Croup.

Diptheritic croup dates back certainly to the time of Areteus, if not, to that of Hippocrates.

The former of these writers, after describing pharyngeal diphtheria (as quoted by Dr. McKenzie), says: "If it extends rapidly to the chest through the windpipe, the patient dies the same day of suffocation." Galen refers to the expectoration of a "membranous tunic from the pharynx." But according to Dr. McKenzie, Baillou, who lived in the latter half of the sixteenth century, gives the first definite description of false membrane. Tilla Real, a Spanish physician, describes an epidemic which prevailed in 1611, in which you have "a white matter in the fauces, gullet and throat, of such a nature that if you stretch it with your hands it appears elastic, and has properties like those of wet leather."

Dr. House, of Edinburg, in 1765 described, under the name of *croup*, "an acute affection of the larynx and trachea, attended by the formation of a *membrane in the pharynx*, and often causing death by suffocation." Most of us, I presume, recognize diphtheria in this assemblage of symptoms.

In 1802 Dr. Cullen, of the same city, gave a description of *cynanchi trachealis*, in which we cannot fail to recognize the diphtheria of to-day; and Dr. Caldwell remarks, in a foot note, "that *croup* sometimes prevails epidemically, as appears to have been the case in the neighborhood of Alexandria, Va., in 1799, when Gen. Washington fell a victim to it."

Pathologically, I think it may be assumed that *false membrane* is as constant a result of diphtheritic inflammation or poisoning, as the eruption in scarlatina, or pustule in small-pox is an effect of the poison upon which those diseases depend; and if this membrane is found in the *pharynx*, I think I am safe in saying that we all consider it equally conclusive as a diagnostic. It appears, then, only necessary to establish the identity of *laryngeal* with *pharyngeal* false membrane, to make the former as conclusive a diagnostic as the latter.

I presume no one will undertake to differentiate *laryngeal* from *pharyngeal* false membrane by the "naked eye" appearances. Virchow at one time based a distinction upon the claim that diphtheritic membrane could not be detached without tearing the underlying surface, while the croupous could be removed without injury. He, however, surrendered this distinction after closer observation.

Dr. McKenzie holds that it has been fully demonstrated that the difference in *degree* of adhesion of pharyngeal and laryngeal false membrane, is due to the difference in the structure of the parts upon which they exude.

So far as I am informed, microscopists have failed to differentiate. Dr. Wagner declares that his preparations of *croupous* and diphtheritic membrane "are very much alike." Rindfleisch admits that "the pathological processes are the same."

We now come to consider the supposed clinical difference and post mortem revelations.

Dr. Watson (see lectures as to membranous croup) says: "It is not contagious, but is sometimes found attacking more than one member of the same family at the same time, or in quick succession. The children of washerwomen are more particularly obnoxious to it, and the attack is sometimes *preceded by sore throat*" (an incident has recently occurred under my own observation, in which diphtheria was conveyed in the clothes to be washed to the family of the laundress).

Dr. Colsy, in his account of *membranous croup*, says: "It appears to be epidemic when the wind is from the east"; and in his descriptions of post mortem revelations says: "The mucous membrane of the *pharynx* is sometimes *covered* with false membrane, at the same time that we find it in the larynx."

Dr. Wood (see Practice, Vol. I., p. 813, article *Pseudo-Membranous Croup*) says, in his account of symptoms: "This disease may always be suspected when the voice cannot be raised above a whisper, with wheezing inspirations, and especially when examination reveals *patches* upon the fauces, *or a continuous coating of fibrinous exudation on the soft palate, half arches, or pharynx.*"

Troupian, in his lecture, "Diphtheria," says: "Diphtheria shows a marked preference for the pharynx, the air passages, and of them, particularly the larynx, constituting the affections commonly known as membranous sore throat, or malignant sore throat, formerly designated gangrenous sore throat, and suffocative sore throat, now more particularly called *croup*, in which the larynx is the chief seat of the disease. Of all its forms, pharyngeal is by far the most common."

Then follows the history of a case of croup occurring in the Hotel Dieu, under the following circumstances: Six days after the admission of a mother and her child into a ward, where there was a woman with membranous sore throat and a child with croup, the mother was found to have the right tonsil and uvula coated with false membrane and the cervical glands enlarged. Her child was attacked three days later. A whitish concretion was observed on a slightly abraded surface at one of the commissures of the lips; the tonsils, as well as pillars and arch of the palate, presented nothing abnormal, *not even redness.* On the third day symptoms of croup presented themselves; by the fifth this child was dead from suffocation. The autopsy revealed an absence of any deposit upon the tonsils or palate, but the larynx and trachea were invaded by false membrane, which extended even to the most distant bronchial ramifications.

It is claimed by dualists that diphtheria has its local expression in the pharynx, occasionally spreading to the larynx, while croup is especially a disease of the larynx and trachea.

I have good authority for the statement that membranous croup originates in the larynx or trachea in about ten or twelve per cent. of cases, but if it had its origin in one of these localities in *every case*, unity could still be successfully maintained. In a constitutional disease *local expression* cannot make a specific difference.

Rheumatism, whether expressed in muscle or joint, is rheumatism still. Cancer is no less cancer with its local expression in the larynx, than if the pharynx be the site selected. It is true, if this site be selected the cervical glands sympathize at once, because of the intimate anatomical relations of the parts, and this fact obtains also in pharyngeal diphtheria, and admits of the same explanation.

But dualists urge that croup is a sthenic and diptheria, an asthenic disease. In reply, while few of the profession now resort to the lancet in membranous croup, but on the contrary distinguished dualist authorities recommend the supporting plan in which alcohol is specially included, Dr. Simons, of Paris, reports fifty-three cases of diphtheria treated by venesection in 1878, without the loss of a case. All clinical experience attests a wide range in *type* of all the Zymoses, from collapse to the highest excitement. I believe laryngeal is generally more sthenic than pharyngeal diptheria, which fact has been ascribed to different anatomical relations of the local expression, but few authorities now regard membranous croup a sthenic disease.

To sum up, unity is established by the history. The old writers evidently describe diphtheria under the varied nomenclature of "croups, membranous croups, cynanche trachialis," etc. By the ætiology, none of us suppose that the children of London washerwomen were so prone to *croup* because of the dampness produced in their houses by washing, as Watson thought, but the contagion was brought in the clothing to be washed.

Pathologically, microscopically, and clinically, the membranous exudation has been shown to be the same, modified only by difference in site.

Clinically, for myself I will say, that if you will show me through the intervention of the laryngoscope false membranes in the larynx (eliminating Herpes and perhaps Minguett) or the expectorated membrane separated from the mucous by water, I will not hesitate to say that you have a case of blood-poisoniug, now known as diphtheria, although there were no deposits in the pharynx. I have recently treated and lost a case.

DISCUSSION ON DIPHTHERIA AND MEMBRANOUS CROUP.--ITS UNITY OR DUALITY.

BY E. L. BOOTHBY, M.D., HAMMOND, ST. CROIX CO., WIS.

The alleged or so-called differences between what is known as membranous croup and diphtheritis are—1st, pathological; 2d, clinical ones. There was great importance attached to the pathological structure of the false membranes found in the pharynx and larynx in the peculiar inflammations known as diphtheria and membranous croup.

Virchow was the originator of these so-called pathological differences, better called theoretical distinctions. He admitted a similarity in structure, but claimed that the exudation was poured into the structure into the substance of the mucous membrane in pharyngeal *diphtheria*, while in membranous croup the exudation was but a coagulation upon the surface.

A most important point was thought here to be made in practical diagnosis,—removing the membranes, etc., etc. No homogenous basement membrane in the pharynx, and is in the larynx. He surrendered this ground finally, for he found that these exudations passed into each other by insensible gradations, and then brought up another theory that necrosis of the subjacent tissue was the great pathological symptom, and distinguishing feature of diphtheritis.

This was no better than the other, for many cases he found to be croup clinically, but necrosis (*death*) of the soft tissues supervened, and *vice versa*.

No naked eye or microscopical differences in the two membranes.

Wagner says the diphtheritic deposit is a transparent, homogenous tustrous net-work filled with pus corpuscles croupous.

Deposit is a close net-work of delicate threads whose meshes contain elements resembling *puss cells*. Rindfleisch believes in a pathological identity of the two membranes. Hence, we must perforce abandon our first difference, viz.: the pathological.

Next let us consider what has been termed the clinical differences. They are as follows: 1st, the difference in location; 2d, the difference in manifestation.

In regard to the first named, that of site or location, it is claimed that diphtheria is a disease of the pharynx, tho' it may sometimes spread downward into the larynx. While croup, the dualists claim, is essentiaily an affection of the larynx, and never follows upward or appears in the pharynx. It would not be croup then, for that term croup or croups was just given to an acute affection of the passages in 1713, by Dr. Polk Blair, of Scotland, while the disease now known and described as diphtheria of the pharynx was not known to the profession of Great Britain till 1858 as diphtheria.

That croup does often begin in the pharynx and passes downward into the larynx, exhibiting oftimes none of the peculiar symptoms of diphtheria, that is, no constitutional disturbances, such as is caused by sepsis, is a fact to which I can testify from many a bed-side experience. In fact, I am ready to assert, and to prove, from careful clinical investigation, that more than 75 per cent. of those cases which the adherents of the duality theory claim to be membranous croup and distinct from diphtheria, the primary local disturbance begins in the pharynx and passes downward into the larynx, and was discovered and pronounced membranous croup.

However, it is not only a matter of logic, but a matter of fact, that differences of location can not from any process of reasoning, from any logical reasoning, be considered in a *constitutional* disease a *specific difference*—(*cancer of larynx*).

The first of the clinical differences then is disposed of; then, that of site or location.

Secondiy, let us look for a moment at the manifestations of the two (*so called*) diseases.

1. They claim for croup that *it* is local (*purely and simply*).
2. That there is no inflamed lymphatics, and consequently no sepsis from secondary absorption into the system of the poison locally generated.
3. That croup is a sthenic(?) disease.
4. No albumen appears in urine.
5. Paralysis never supervenes.

While, per contra, it is claimed by the same class of men that just the opposite is true of diphtheria, viz.:

1. That it *is* a *constitutional* disease.
2. It is of a dynamic type.
3. That the cervical lymphatics ARE swollen and inflamed.
4. That albuminaria often appears (and when it does so your patient generally dies).

And 5, and last. Paralysis is a common sequel. All of which, regarding pharyngeal diphtheria, we do not attempt to deny, only merely claiming the same conditions supervene in what the dualists call membranous croup.

Let us quietly and briefly examine these claims, and see whether these assertions are facts or fictions.

1st. The constitutional or local nature.

The primary septic condition gives rise to, first, the local conditions; and secondly (according to where these local conditions appear), and subsequently, generate poison to constitutional disturbances.

Though in malignant cases the primary symptoms are constitutional, for the primary septic cause was a powerful one, and may give rise to constitutional disturbances as well when first manifesting itself in the one place as in the other, remember the free network of absorbents of the mucous membrane of the nasal passages, the soft palate, and back of the pharynx, with their wonderful connection with the very numerous cervical glands beneath the angle of the jaw; and do not wonder that poison is carried through them into the system, deteriorating the blood, and causing great hyperæmia and swelling; and contrast this with the paucity of lymphatics in the larynx and trachea, which are connected with but the *one* solitary lymphatic gland, and one small one on the side of the trachea.

And do you not readily *see* WHY you do not get constitutional disturbances when the disease is located in the larynx or trachea?

There is *not* the liability, there can *not* be the danger, there is *not* the constitutional disturbances, when the disease has first seized upon the larynx or trachea.

2. We are told croup is sthenic(?), diphtheria, adynamic—opposite conditions.

Yet diphtheria is often treated with calomel and bleeding, and many advocate a stimulating treatment for croup.

Therefore, we must draw this fact—that distinctions based on a difference of type only in two diseases are without weight.

3. The inflamed and swollen glands I have already spoken of.

4. The alleged clinical difference was albumenaria. Did any of you ever test the urine in what you called membranous croup?

Then test it for albumen in the same number of cases in what you call two diseases, say 100 of each, and you will find it as often complicating the one as the other, and your patients will die in both cases, as a general thing.

5, last. Paralysis—common in diphtheria, rare in croup, I admit. Yet not a year ago I read of a case diagnosed membranous croup where the little patient, struggling in the greatest agony for a breath of God's life-giving oxygen, raised herself from the pillow, only to fall back the next moment a complete paraplegia, in which condition she remained till death ended her sufferings, some forty-eight hours subsequently.

Ordinarily, our patients are asphyxiated ere they have time for paralysis to appear, as *that* is generally a *sequel*.

There, gentlemen, are all the conditions which have ever been claimed, so far as I know, in the differential diagnosis of what you denominate membranous croup and diphtheritis.

We must look upon this question, however, from a broad, a philosophical, a progressive standpoint.

In order that we may place our accumumulated knowledge where we can use it to the greatest advantage, we must classify. At first, classifications were all symptomatic. Next, after anatomy became mastered, classifications were all anatomical.

But neither of these will answer for the present day. An ætiological classification is what we seek. Trace disease to its origin, unearth its hidden causes, for the cause of disease is the very essence of its specific nature.

INFANTILE PARALYSIS.

BY DR. NORMAN TEAL, KENDALLVILLE, IND.

[Read in the Section on Diseases of Children.]

The subject of infantile paralysis is chosen in this instance for two main reasons: First, for what is not known of it; and second, for what ought to be, and possibly in time may be, learned of a malady of so frequent occurrence and so dire in consequences.

The gospel preacher does best when discoursing from a substantial text, and so it is, I fancy, in regard to other speculative as well as practical subjects. Accordingly, for the better discussion of the subject in question, I will introduce a case in point, which will be recognized as a fair type of essential paralysis: A seventeen-month-old female child of previous good health and of good development was recently brought to me by the mother and the attending physician, presenting the following special symptoms:

Complete *paraplegia*, considerable *dyspnœa*, slight *paresis*, involving the muscles of the *neck*, *dorsum* and *arms*, with the attendant inability to hold up its head—that is, to hold the head erect without special effort, etc., and with a very slight restlessness apparent in the face and eyes. The history, as related by the mother, was that the child had passed a quiet and comfortable night in bed with its parents; that it had played in bed in the morning, as was usual with the lively little charge; that the child, after its morning romp in bed, had been allowed to climb out upon the floor, intending, or at least so interpreted by the mother, to run to the father, who had previously arisen, when suddenly the alarming fact that this usual morning feat of running about the house in robe scant and free could not be performed. The child could neither run, walk nor stand; it was thenceforth a helpless little bundle.

As before remarked, this is a typical case of infantile paralysis; and cases similar to this occur continually, and many have happened in the past. The malady has left its indelible stamp of distortion and disability upon its thousands of victims in the past, and is daily recruiting its army of cripples, in spite of boasted achievements in medical and surgical science. Though, the fact is, the profession is not boastful in regard to essential paralysis: on the contrary, there are too many of its members who shun the victims of this disease, because they feel so little can be done in the way of curing.

In regard to the treatment of the case I present, I have to say, pot. bromid., ergot ex. fl., and bel. ex. fl., were prescribed, followed by abatement of several prominent symptoms, notably the dyspnœa and the paresis of the neck and arms, but, as may be inferred, without any apparent change in the paraplægic condition. In addition to the internal medicines given in the case, external manipulation, such as rubbing with the hands, slapping the surface of the thighs and nates, galvanism, and often repeated moving of the feet and lower extremities, with particular attention to flexion and extension of the principal joints, and also of the feet and toes, was not only made by myself, but strongly advised, and, I have no doubt, was practiced by the attendants of the patient. Attention to diet and general bodily exercise was also included in the management of the case. This is the case, so far as history, treatment, and the partial results already mentioned are concerned. The present status, after the lapse of about four months, will follow, with your further attention: The patient has regained the power to move the toes, can sit erect and easily hold up the head, has no dyspnœa, can flex the legs and thighs, but has only feeble power of extension; cannot stand, or at best can only do so with aid, and has learned to creep about, dragging the enfeebled lower part of the body along. I may be per-

mitted to remark, at this juncture, that I regard this crawling or creeping operation as somewhat against the patient, for the reason that the bodily exercise thus made or taken is at the expense of the lower enfeebled parts, in the respect that such locomotion, while it satisfies the immediate desires of the patient for change of position, it does not in the least give the much-needed exercise to the affected parts; and, on the contrary, it induces a habit of allowing such parts to remain in a state of idleness, which, above all things, is hurtful to chronic cases of this class.

So far no reference has been made to the pathology of essential paralysis, and upon this rock in this case —as in all others of the class we founder, or, if we choose, may float out into the sea of speculation—a feat I, for one, do not now elect to perform.

In conclusion, gentlemen, I beg to suggest that in the present light we are especially called upon to guard our little unfortunates against the deformities almost sure to follow siezing of this disease.

While we do not know the true nature of infantile paralysis, we do know only too well that atrophy contractions, with adhesions, etc., are common results; and it is against these we must guard as best we can. The proper measures to fulfill this, or these indications, will suggest themselves to the attentive practitioner. Do not infer that I mean to say that even the best of our efforts will always succeed entirely in preventing deformities. I do say, however, that much may be done in this direction by well directed manipulation and appliances, to the exclusion of nostrums and all dyspepsia breeding. In short, gentlemen, the patient should be treated mechanically according to the indications in each particular case, flanked only by such internal medicines as may be required for the correction of unhealthy constitutional conditions.

With the best possible treatment our patients will generally remain paralyzed, at least for a long time, but I hold that if we keep up the nutrition of the affected parts, by any means whatever, and mechanically and otherwise guard against deformities, we assure to them—in fact, gain for them—about the only chance of final recovery. On the contrary, if we allow deformities to take place, our patient can scarcely recover, even if the paralysis should fortunately pass off.

Is there any question in the minds of my hearers as to the authoritative language of allowing or permitting deformities to occur? If so, I answer that the surgeon who would allow anchylosis of the wrist to follow a Colle's fracture—without having advised, yea, even enforced, early passive motion—would be guilty of malpractice, and would be equally guilty if he permitted his young paraplegic's lower extremities to become distorted without having made strenuous efforts to prevent such calamitous condition. These efforts should be massage, opposing abnormal contractions and tendencies thereto by hand and proper mechanical appliances, bathing, moderate friction of the limp extremities and the spine, standing the patient erect upon the supported limbs, and all means possible and probable that may send life-giving blood into the half-dead tissues, and such means as will certainly compel the enfeebled parts to action, for it is well known that non-use not only fosters but even begets inability.

Much more might be said in regard to the management of cases of infantile paralysis, but as this paper was and is intended only to be suggestive, and does not in the least particular aim to be conclusive, I will leave the subject, trusting that a little lesson has been set, from which practical results may evolve.

DISCUSSION.

Dr. Wm. Lee, of Baltimore, said that Dr. Teal's paper was confined to what he called paralysis, coming on suddenly without warning. He believed these cases, as a rule, had an exciting cause—such as rheumatism or neuralgia, and this from the fact that the patients usually got well in a short time under proper treatment for these exciting causes. Sometimes the disease simulates morbus coxarius, but this was easily excluded for want of other important symptoms. He believed the treatment of infantile paralysis often very unsuccessful, and, if successful, very tedious, even under the management of our ablest men.

JEQUIRITY IN GRANULAR LIDS.

BY EUGENE SMITH, M.D., PROFESSOR OF OPHTHALMOLOGY AND OTOLOGY IN DETROIT MEDICAL COLLEGE.

During the past year the attention of oculists has been called to the treatment of this intractable disease by an infusion of jequirity seeds, and the profession is indebted to Dr. DeWecker, of Paris, for first bringing it forward in such manner as to make its use promising. Conflicting statements, however, have prevented many from using it, and no doubt the very severe effect of its application in many cases has prevented those testing it from giving it a fair trial.

During my vacation this summer I visited Dr. De Wecker's clinique, and there saw many cases in various stages of treatment, his method of applying it and the results, and I was somewhat astonished at each phaze of it.

As trachoma is the *bête noire* of our practice in Michigan, I am deeply interested in its effects, and I feel personally under many oblications to Dr. De Wecker. I believe the profession will also for bringing to our notice jequirity.

DeWecker gave me some of the seeds he was using, and instructed me in the manner of using them. Since my return I have used the treatment in twelve eyes, being able to bear him out in most of his statements, so far as such a limited number of cases will permit. Besides the seeds he gave me I have used seeds procured from Parke, Davis & Co., chemists, which produced the same effect.

In an article on this subject, DeWecker says in the *Annales d' Oculistique* for May and June, 1883:

1st. "Incontestably, lotions with the infusion of the seeds of jequirity cause a purulent ophthalmia of croupal character, the intensity of which can be regulated by the number of applications made and the strength of the solution used."

2d. "Incontestably, the cornea runs no risk during the course of jequiritic ophthalmia."

3d. "Incontestably, jequiritic ophthalmia cures granulation rapidly."

In support of DeWecker's conclusions, I can say that in *each* of the cases in which I have used it, I have found the jequiritic ophthalmia assert itself after the *first* application of a 3 per cent. solution of either a warm or cold infusion.[1] The degree of its activity varied in different cases, but it was active in all. Some individuals seemed more susceptible to its effects than others. In *each* case there was the phlegmonous-like swelling of the lids, with headache and fever, and in several of the cases *nausea* and *vomiting*. The croupal membrane formed on the conjunctiva, and there was a *sero-purulent* discharge instead of one distinctively purulent. The immediate effect of each application lasted several hours, and the applications were made *three times* a day for *three days*, nine applications in all. The effects were then allowed to subside, simply keeping the eyes clean by bathing the lids several times a day in cold water or borated water.

So much for his first proposition. The second proposition—"the cornea does not run any risk from its proper use"—would seem to be supported by the following facts:

On my return home, August 17th, I found in St. Mary's Hospital a Mr. C., aged 73, who had been for about 10 days under the care of my assistant for a large asthenic ulcer of the left cornea. About four-fifths of the cornea was affected and nearly necrosed, and in spite of the usual methods of treating such cases, it was proceeding to the bad very rapidly; in fact, I considered the eye lost. I was about to test jequirity in a case of trachoma which I had treated at various times for a year or more, when I thought the case of corneal ulcer was a good one to test the fact of its *danger to the cornea*. I made an application to the conjunctival sac and laid a sponge wet with the solution on the lids at noon, and ordered an application that evening and next morning. When I saw him at noon next day—just 24 hours after *first* dose—there was high fever, nausea, intense shining œdema of the lids, particularly the upper lid, chemosis, and considerable pain when the lids were touched. I stopped the use of the jequirity, and let the patient wash the lids with a solution of boracic acid (about 2 grains to the ounce), and let the jequiritic inflammation pass off. The progressive tendency of the ulcer seemed checked, and improvement continued. He was discharged September 4th about well. In another case I used it three times a day for three days in a case of ulcerated trachomatous pannus, with a *small prolapse of the iris*, and the ulcer disappeared with the pannus inside of 10 days from the time of the use of jequirity.

That corneal trouble may arise, however, and that care must be taken in its use, the following fact shows. A Mr. P., whom I have treated several times during the past year for trachoma, and who has been treated by others for the past three or four years, was placed under the jequirity treatment, a 3 per cent. solution being used. The lower half of the cornea had seemingly never been affected by the trachoma; the upper half had a thin pannus. As the jequiritic inflammation passed off, the lower half of cornea of right eye was seen to be extremely hazed, almost bordering on an abcess of the cornea in appearance, and looked as if desquamation might take place. It did not, however, and the cornea slowly cleared up. The left eye took the same peculiar course, only perhaps in a severer form, the keratatis being well marked, and was followed by a small but rather deep ulcer, which, without special treatment, has slowly got well, leaving a thin leucoma.

With regard to the third proposition, "It cures granulations rapidly": I have been astonished at the marked effects I have seen in three weeks as a result of three days' treatment. I have never seen equal results from three months' treatment of similar cases by any of the usual methods. I think, however, the best results will follow its use in those cases of diffuse thickening of the entire palpebral conjunctiva, without the isolated trachomatous bodies; those which seem to be a general lymph-like infiltration with trachomatous bodies in the ocular conjunctiva and possibly in the cornea. In my experience, thus far, these are the cases most benefited.

As to its application, I saw DeWecker use a small sponge, with which he made an application to the everted lids, and had the sponge, wet with the infusion, applied to the lids, externally, for five or ten minutes. These applications were made three times a day for three days (nine applications in all). After trying this method I substituted absorbent cotton for the sponge, and I think its use much pleasanter. I find, in order to get the desired effect, it is well (if the swelling of the lid does not prevent) to evert the lids at least the first three or four times of its application and with a bit of dry absorbent cotton wipe off gently the diphtheritic exudation before applying the lotion. Care must be taken that the sero-purulent discharge does not get into the unaffected eye, as it will set up a similar inflammation and greatly increase the patient's discomfort. Owing to the severity of its constitutional effect when applied to one eye, it is advisable to treat but one eye at a time. After the severe symptoms pass off, which will be in four or five days, the other eye may be treated. The tendency to posterior symblepharon should be combatted by separating the agglutination with a probe.

[1] This is the strength commonly used by DeWecker at present, though he sometimes uses a 5 per cent. solution, closely watching its effects.

MEDICAL PROGRESS.

NEW INVENTIONS.

NUSSBAUM'S BRACELET FOR WRITER'S CRAMP.—This is, in fact, a penholder, which Nussbaum calls a bracelet, to be guided by the extensors and abductors, instead of by the flexors and adductors. It consists of a band of vulcanite of oval shape, about an eighth of an inch thick, and one inch and a quarter broad, with an oval diameter of about three inches and a quarter, and a short one of an inch and a quar-

ter. All the five fingers of the hand can be slipped into it. In using it, however, the thumb only just enters; the little finger is left free outside, and the first, second and third fingers are passed in fully. The instrument can only be held firmly by expanding the fingers through, bringing into play the abductors of the thumb and the extensors of the first and fourth fingers. The pen is screwed to the bracelet so as to be in contact with the paper when the hand lies on a table. Professor Von Nussbaum has tried the treatment of the instrument in a large number of well marked cases of the disease, and states that all the patients wrote easily and well with it, and all of them said they felt comfortable and confident in employing it, writing without any fear of spasm being excited. —*Med. Times and Gazette, July* 21.

NEW REMEDIES.

ARBUTIN.—Prepared from the familiar bearberry leaves, the uvær usifolia of the pharmacopœias Meuche proved its diuretic effect in a case of mitral disease of the heart. It seemed to have a similar action in a case of chronic tubercular peritonitis. Catarrh of the urinary organs is the special province for the employment of arbutin. The urine of patients taking arbutin when first passed is of a normal color, but becomes of a dark-green color by standing, like the urine in carbolic acid poisoning. Bodländer has proved that hydrochinon is present in such urine. Arbutin is a glucosate, and occurs in fine acicular crystals of white color, soluble in water, which solution is of neutral reaction, of faint bitter taste, and odorless. The following formula illustrates the chemical composition of the substance, and also the reaction which takes place under the influence of a ferment:

$$\left.\begin{matrix} C_6 H_{11} O_5 \\ C_6 H_4 OH \end{matrix}\right\} Q + H_2 O = C_6 H_{12} O_6 + C_6 H_4 (OH)_2$$

Arbutin + Water = Glucose + Hydrochinum.

Hydrochinon will thus be seen to differ from phenal merely by the replacement of a second atom of hydrogen of the organic radical $C_6 H_6$ by an atom of monovalent hydroxyl. The remedy may be administered in large doses without the production of any unpleasant effects. Brieger has employed a solution of hydrochinon as an injection in the treatment of gonorrhœa, but the healing influence of the drug would seem to be quite as effectually exhibited by giving arbutin by the mouth. It is recommended to give forty-five to sixty grains of the powder in the course of twenty-four hours in cases of urethritis.—*Lancet.*

KORONIKO, from the veronica pariflora, is largely used in New Zealand as a remedy in dysentery and diarrhœa. Dr. Jardine has also found it of much value in the chronic dysentery of China. After the administration of fifteen doses of the tincture of koroniko the number of the sanguineous and slimy stools was reduced to one-half, other fifteen doses reduced them to three or four daily, and a third like quantity effected a complete cure.—*Lancet.*

THE WATER CRESS.—Dr. Grelletz, of Vichy, brought before the Therapeutical Society (Bulletin, June 30) the question whether this popular article of diet possesses any of the depurative qualities popularly attributed to it. He is of opinion that it does not, and that it is indigestible to most stomachs. It has acquired an undeserved reputation, and may be mischievous in the various forms of dyspepsia. Dr. Noel Guéneau de Mussy, however, is of opinion that this plant is possessed of real therapeutical powers, and he has, on many occasions, derived advantage from it in chronic cutaneous affections. He recommends its being prepared for the table in the same way as spinach, when it is easily digested and of a pleasant taste, or the cress may be carefully washed, cut up into small pieces, and then submitted to a press in order that its juice may be expressed. This is a little acrid, but may be corrected by syrup of bitter oranges or of horse-radish. Dr. Campardon has also found it of utility in dartrous affections, as Dr. C Paul has in several cases of diabetes.—*Med. Times and Gazette,* Aug. 4.

CLINICAL CHARACTERS OF WOOL-SORTERS' DISEASE (ANTHRAX).—Mr. Spear (*Medical Times and Gazette,* July 21) has prepared a memorandum on behalf of the British Local Government Board for use in an inquiry into the occurrence of this disease amongst men employed in hide warehouses, tanneries, etc.

The Internal Form of the Infection, or Anthrax Fever.—Premonitory symptoms (of variable duration): Chilliness, aching or stiffness of limbs, and mental depression; restlessness, sense of constriction of chest, and oppression of breathing; headache, dizziness, nausea, or, less frequently, vomiting.

Stage of full development: Notwithstanding the indefinite premonitory symptoms, the stage of full development is generally somewhat sudden and unexpected in its onset, so as to cause much alarm. The prostration and restlessness become extreme; there are præcordial anxiety and dyspnœa; blueness of the face and extremities (cyanosis) is conspicuous; and the patient may die within twenty-four or thirty-six hours, with all the appearances of collapse or of asphyxia. A fatal termination is, however, more often postponed until from two to five days after the commencement of this stage. Other nervous phenomena—muscular paralysis, convulsions or tetanic spasms—are apt to develop themselves, and evidences of various acute local congestions (especially of the lungs, less frequently of the gastro-intestinal tract) are rarely wanting. Delirium is often absent, and the temperature is irregular. Exacerbations, alternating with more or less complete remissions, of the more urgent symptoms constitute usually a striking feature of the disease. Recovery is not so rare as has been supposed, even in fully developed attacks; but death may occur from a relapse, or from secondary septic processes. The body after death usually undergoes rapid decomposition, with blue discoloration and swelling, especially about the neck.

The External Form of the Infection, or Malignant Pustule.—The malignant pustule attacks almost always parts of the body habitually uncovered, and most frequently the face. It commences as a small

papule, which quickly develops into a vesicle, and this, being broken, pours out a little watery exudation. The base of the vesicle and the surface immediately adjacent dies, so that in about three days after its appearance the lesion consists of a small central black eschar, with a raised border of inflamed and tumid skin, upon which vesicles are apt to be developed, a crop of secondary vesicles surrounding thus the central eschar like a wreath. The neighboring lymphatics and glands are speedily implicated, and the patient may soon lapse into the condition described above, of constitutional infection. The pustule does not apparently always present this typical appearance. When occurring upon the hands, such appearance is uncommon. It has then no central black eschar, no raised vesiculated border. It is described as a small slightly inflamed tumor, exuding only serosity, giving rise to comparatively little pain, or even increased sensibility, but showing a tendency to set up a diffuse cellulitis. Constitutional infection may follow.

Scarlet Fever in its Relation to the Puerperal State.—J. T. Burgess, L.R.C.P., L.R.C.S., Edin., in a communication to the *Lancet* August 25, records a case of scarlet fever occurring in a puerperal woman, delivered five days before the appearance of the disease, and resulting in tympanitis, dilirium and death thirteen days after delivery. She was confined in an isolated cottage, in a sparsely populated district, and in which, twelve months previously, scarlet fever had prevailed. The house had never been disinfected, and in hurriedly preparing a room for the reception of the patient, a quantity of old sacking was removed from the chimney. While in attendance upon this case, and the day before her death, the recorder delivered another woman, seven miles distant, who, in turn, was taken with scarlet fever, showing soon after delivery symptoms of constitutional disturbance, and on the third day sore throat ; on the sixth day the rash appeared. She passed through the stage of desquamation, but suffered from pneumonia and abdominial tympanitis, and died on the twenty-third day from exhaustion. A younger sister, who had been in attendance on her, passed through a slight attack of scarlatina. There had been no scarlet fever in the village where the second case resided, nor, as far as could be ascertained, could she have had communication with any one suffering from that disease. The more important complications appeared to take the form of serious inflammation, and to be exaggerations of the after-consequences rather than of the primary symptoms of disease.

The Action of Saline Cathartics—Dr. Matthew Hay has recently conducted a series of experiments upon animals, to properly define this subject, in the pharmalogical laboratory of the University of Edinburgh, the result of which he has published in the *Journal of Anatomy and Physiology*. The following embody some of the conclusions at which he arrived :

The excito-secretory action of a saline purgative is probably due to the bitterness as well as to the irritant and specific properties of the salt, and not to osmosis.

The low diffusibility of the salt impedes the absorption of the secreted fluid.

Between stimulated secretion on the one hand, and impeded absorption on the other, there is an accumulation of fluid in the canal.

Purgation will not ensue if water be withheld from the diet for one or two days previous to the administration of the salt in a concentrated form.

Unless the solution of the salt is more concentrated than 10 per cent. it excites little or no secretion in the stomach.

The salt excites an active secretion in the intestines, and probably for the most part in the small intestines.

The bile and pancreatic juice participate but very little in the secretion.

The secretion is probably a true *succus entericus*, and is promoted by local irritation, while absorption by the intestine generally is reflexly stimulated by such irritation. As this secretion contains a very small proportion of organic matter as compared with the inorganic matter, the purgative removes more of the latter than the former from the blood. In certain cases a large quantity of the salt in the blood is thus evacuated.

The salt, after some hours, causes diuresis, but the amount of the normal constituents of the urine is not affected.

Good Remedies out of Fashion.—In an address on this subject delivered at the Annual Meeting of the Metropolitan Counties Branch of the British Medical Association, by the President, Dr. C. J. Hare, late Physician to University College Hospital, the lecturer made some interesting observations on emetics and bleeding.

"It is not long ago that in a very urgent case of bronchitis, I advised the administration of an emetic, when the gentleman whom I had been called to meet in consultation said, 'Why, I never gave an emetic to an adult in my life.' In former times, it was not unusual, on the contrary, to commence the treatment of many diseases with the administration of a dose to procure vomiting ; and although the remedy might then be given sometimes indiscriminately and according to routine, only those who have seen the effects of emetics, properly and judiciously given, can conceive the beneficial effects they sometimes produce. In the early stage of an attack of croup, it was by no means unusual to give an emetic of tartarized antimony or of ipecacuanha ; and it is in accordance with the recorded experience of some of the best authorities and most practical men, and quite consonant with my own experience too, that symptoms which presented the most certain augury of a severe attack were by these means cut short ; the hoarse voice resumed its natural character, and the feverish symptoms were in a few hours relieved. I know quite well that a great fear is entertained by some as to the depressing effects of emetics ; but the fear is theoretical, and not practical, and those who have had most

experience in the administration of them best know how groundless the fear is. In diphtheria, too, I have seen the false membranes which are out of the reach of local remedies, and which the patients cough and cough in vain, and utterly exhaust themselves to get quit of, readily brought up by the action of vomiting, to the immense relief of the sufferer.

"In suffocative bronchitis, the effect of emetics is sometimes magical, and by their administration in such cases not only is immense relief given, but I verily believe—I am certain—that lives are saved. You are called to a patient who has been ill a few days, with increasing dyspnœa; she is sitting up in bed (I draw from nature), for to lie down is impossible; she is restless, and tossing about; the lips, and indeed the whole face, blue; the eyes watery and staring; the pulse quick and small; the cough constant; the expectoration semi-transparent and tenacious; over every square inch of the chest, front and back, from apex to base, you find abundance of rhonchi; moist, sonorous and sibilant ones in the upper part of the lungs, and muco-crepitant or mucous *râles* towards the bases. Ammonia and stimulants, right and good in their way, perhaps, in such a case are too slow in their action; the patient is, in fact, more or less slowly, more or less rapidly suffocating. An emetic of twenty-two grains of ipecacuanha in an ounce of water is given; in ten or fifteen minutes the patient vomits, and brings up a huge quantity of that tenacious mucus, and the whole aspect of the case is altered; the distressed countenance is relieved; the breathing is at once quieter; and the patient is able, for the first time for the past twenty-four hours, to lie moderately low in bed, and to get some sweet, refreshing sleep. The patient is, in fact, rescued from the extremest peril, and in this case, and in many similar ones, too, I believe, from otherwise most certain death. Of course, in such cases the emetic is not given for its effect on the stomach, but for its collateral effect in mechanically clearing out the enormous amount of secretion which accumulates in the bronchial tubes, and which the patient is otherwise quite incapable of getting quit of; and thus the half-choking, almost asphyxiated condition is changed for one of comparative comfort, and time is gained for the action of other appropriate remedies. No doubt the secretion may, and often will, accumulate again; and I have not hesitated again in bad cases to repeat the same good remedy; but it is a fact, and a very positive one, too, that, quite contrary to what those who have had no experience in the plan suppose, the system rallies instead of being more depressed under the action of the remedy.

"There is a class of cases in which the right heart is engorged with blood, and in which the only hope of rescuing the patient from death is by bleeding. A man of middle age (I again draw from nature) has considerable chronic bronchitis, with some congestion of the lungs, and, like many other unwise persons, he goes to a southern watering place, instead of remaining in his room and in an uniform temperature. Becoming worse, he determines to return home, and travels on a cold spring day; his dyspnœa is so much worse on the journey, that his friend and fellow-passengers doubt whether he will arrive home alive; and when his carriage meets him, it is with the greatest difficulty he is conveyed to his house and got into his drawing-room. You are at once sent for, the message being that the patient is dying, and when you arrive you find that that is the fact. He is sitting in a chair (to lie down is impossible for him), his face is blue and swollen, his lips purple, the eyes suffused and staring; his heavy, gasping breathing you have only too distinctly heard and recognized as you ascended the stairs, and when you see him you find his chest heaving, and each short, gasping inspiration followed by a long wheezing and moaning expiration; his lungs are full of moist sonorous, and mucous and submucous rhonchi, and scarcely a trace of vesicular respiration is to be heard, and he is pulseless. He looks to you beseechingly, and gasps out, in scarcely articulate words, that he is dying. This is but too true. Now, the treatment for such a condition at the present day is "to pour in stimulants" (though the patient can scarcely swallow). Brandy and water are given, and ammonia, and perhaps ether; then, if the patient live long enough to have them made, mustard poultices are applied to the chest, and to the calves, and to the feet, and the patient is fanned, and the patient dies. Something has been done, but that which true pathology—and, indeed, common sense, unshackled by prejudice, custom, and fashion—would dictate, has been left undone. Appearances have been saved, but not the patient's life.

"The fact is, that here the danger lay in the right side of the heart being gorged with blood, so that it was impossible for its stretched and distended walls to contract and to propel forwards the thick and blackened blood. Oh, as you value your patient's life, as you value the blessed consciousness of being a minister who has done everything possible for his welfare, let me beg of you not to be contented with the futile treatment of to-day; relieve that poor oppressed distended heart, and all may be well. Open one of the veins which are, with every systole of the heart, tending to carry more and more blood to this already distended right ventricle, and all may yet be well with your patient. Sometimes this blood-letting in extreme cases is no easy matter. It may be necessary, before you can effectually open the vein, to place the patient's arm in warm water, so as sufficiently to distend the vein; and even when the ligature has been efficiently applied, and the vein well opened, you may have to press and squeeze and rub upwards the arm before a drop of the thick and tarry blood will flow. But, when it does flow at length freely, oh, what a marvelous change may you see take place. The breathing becomes quieter, deeper, and less noisy—the haggard face resumes the appearance of tranquility, the blueness of the skin is replaced by a more natural tint; the pulse becomes more and more distinct, and, in a word, the choked-up heart is set free. This is no fancy picture. Every word is simple truth, and I appeal for confirmation to the memory of every senior member present who recollects the experience of his earlier days, and who can

also probably tell you that the after progress of such cases was sometimes almost miraculously rapid, so that in a few days even, the patients might become convalescent."—*British Medical Journal.*

MINERAL WATER INHALATIONS.—W. G. BLACK, F.R.C.S.E., describes in the *Medical Press and Circular*, of July 18, the system adopted in pneumatic affections at Bournemouth as similar to that used in some Spas abroad. The mineral vapor is introduced into large rooms, with cemented walls and stone floors, and the windows and doors are closed for the short period of inhalation required by the patients sitting inside them. The vaporization is chiefly effected by spray machines, so that the temperature of the inhaled mixture of air and water is kept at a moderate degree, and within physiological limits for absorption by lungs and skin. The invalids at their hotels dress in flannels, and are carried in closed sedan-chairs to the inhalation chamber, where they sit down on the benches or chairs to inspire the vapor, or walk about to and fro on the floor. After a quarter of an hour's treatment the chamber is opened, and the patients return to their hotels. The vaporization being effected by the spray machine, along with air or steam, as the motive power of the blast, the temperature need not necessarily be at an uncomfortable height for sustaining its maintenance and respirability along with common air.

THE COUVREUSE OR MECHANICAL NURSE—After two years' trial, says the *Lancet*, the *couvreuse* has proved so decided a success that a brief description of this ingenious contrivance may be desirable. It was in 1878 that Dr. Tarnier, when visiting the apparatus devised by M. Odile Martin for artificially hatching and rearing chickens at the Jardin d' Acclimation, suggested that a similar method might be applied with advantage to infants, especially in cases of premature birth. Two years elapsed, however, before any attempt was made to carry out this proposal; but in the course of the year 1880, a *couvreuse* was made, and brought to the hospital of the Maternitee. This is a plain wooden case or box, measuring about 2 ft. 8 in. by 2 ft. 4 in. and 2 ft. 4 in. in height. The box has a double covering, the space between being filled with sawdust to retain the heat, and is divided into two parts. The lower half contains a reservoir, which holds about sixty liters of water, and is fed by a patent boiler that stands outside the box, and is warmed by an oil lamp; or hot water may be used without recourse to the lamp. The upper portion of the box forms a warm chamber, where a little basket or cradle is placed, large enough to hold two infants. From an opening at the side, this cradle may be withdrawn, while the top of the box has a double glass covering, so that the children and the thermometer lying by their side can be constantly watched. If the water used in the first instance is cold, it takes a long time to attain the required temperature; but once this is done, the lamp need only be re-lit three or four times during the course of the day. It is best to warm the apparatus while the infants are being fed or washed. The temperature within the *couvreuse* is generally maintained at 86° F., and, though the contrast on withdrawing the child to be fed or washed is very great, amounting often to 30° F., colds are not so frequent as among the infants nursed in the ordinary manner. Altogether the experiment is considered so successful that it is proposed to supply all the hospitals of France with a *couvreuse*, and there is every reason to anticipate good results from this measure. Nor is this all. A small portable *couvreuse* is now about to be tried, which could be carried by hand from house to house. After this we shall probably have perambulators constructed on the same model. In conclusion, we should remark that, though no very careful experiments have been made with respect to the ventilation within the *couvreuse*, yet this is evidently sufficient. Apertures are made in the lower portion of the box, the fresh air travels over the hot-water reservoir, and is thus warmed before it reaches the child. The very great difference of temperature within the *couvreuse* insures a constant current of air, though the child is protected by its cradle and clothes from any draught.—*New York Medical Journal.*

THE celebration of the one hundredth anniversary of the establishment of the medical school of Harvard University, and dedication of its new building, will take place October 17, 1883.

PROGRAMME.

I.—MASSACHUSETTS INSTITUTE OF TECHNOLOGY, HUNTINGTON HALL, AT 11 O'CLOCK A. M.

Address by the President of the University.

Oration by Emeritus Professor Oliver Wendell Holmes.

Presentation of a Portrait of Professor Holmes and a Bust of Professor Henry J. Bigelow.

II.—MEDICAL COLLEGE, BOYLSTON STREET.

Prayer by Rev. A. P. Peabody, D.D.

Dedication of the new building to the purposes of medical instruction.

Reception of subscribers to the building fund, and invited guests, by the Medical Faculty.

Exhibition of the building.

Lunch will be served from 1 to 2 P. M.

DR. JAKSCH, of Vienna, formerly Professor Nothnagel's assistant, has been made a Privat-Docent in medicine; Professor Schwalbe, of Königsberg, becomes Professor of Anatomy, succeeding Professor Waldeyer at Strassburg.

OFFICIAL LIST OF CHANGES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM SEPTEMBER 7, 1883, TO SEPTEMBER 14, 1883.

Banister, J. M., First Lieutenant and Assistant Surgeon, assigned to duty at Fort Adams, R. I. (par, III, S. O. No. 170, Department of the East, September 10, 1883).

THE

Journal of American Medical Association.

PUBLISHED WEEKLY.

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

SUBSCRIPTION PRICE, INCLUDING POSTAGE.

PER ANNUM, IN ADVANCE..... $5.00.
SINGLE COPIES..... 10 CENTS.

Subscriptions may begin at any date. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made at the risk of the publishers, by forwarding in REGISTERED letters.

Address

JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
No. 65 RANDOLPH STREET,
CHICAGO, ILLINOIS

SATURDAY, SEPTEMBER 22, 1883.

PREVALENCE OF EPIDEMIC AND INFECTIOUS DISEASES—Although vessels have recently arrived at the quarantine stations both of Portland and New York, with cases of yellow fever on board, the disease has not been communicated to any new place in our country outside of the quarantine stations. It continues to prevail to a limited extent at the navy yard near Pensacola, but the city is still reported healthy and free from cases of the disease. The cholera plague is steadily diminishing in Egypt, although the question whether it will make its appearance in Europe and this country during the next summer continues to be discussed with earnestness on both sides of the Atlantic. Yet the question is one that no individual can answer until the season comes. If the coming summer should be characterized by a persistent temperature, decidedly above the average, and any place in Europe or America should allow such an accumulation of unsanitary influences as existed at Damietta, and in most of the centers of population in Egypt during the summer just past, they may rely, with much certainty, on reaping a harvest of death, either from epidemic cholera, or its equivalent. For notwithstanding all the theoretical assertions that the cholera can originate *de novo*, only in the valley of the Ganges, there is nothing in the history of past epidemics, nor in the known laws of nature, which go to show that the same combination of high temperature, decomposing animal and vegetable matter and aggregations of unsanitary people, that give rise to cholera on the banks of the Ganges, will not just as readily produce it on the banks of the Nile, the Hudson, or the Mississippi. On the other hand a strictly sanitary people, supplied with pure water and living on a clean soil, need suffer no great anxiety about a visitation of cholera at any time. We would have all the avenues by which infectious diseases could be introduced from infected places into our country, guarded by a rigid system of marine inspection, detention and care of the sick, and the thorough enforcement of marine hygiene in regard alike to ships, cargoes and passengers. But we would not have it forgotten that the safety of every community so far as regards the prevalence and fatality of infectious diseases depends mainly on its own local sanitary condition.

COLLEGE APPOINTMENTS.—Owing to the continued ill-health of Professor J. S. Jewell, who has filled the Chair of Mental and Nervous Diseases in the medical department of the Northwestern University, better known as the Chicago Medical College, for many years, he has been appointed Emeritus Professor of Psychological Medicine, and Prof. Walter Hay has been transferred from the Chair of Materia Medica and Therapeutics to that of Mental and Nervous Diseases and of Medical Jurisprudence. During the long period that Professor Jewell has been connected with the college in the capacity of an active teacher, he has filled the positions assigned him with an ability and enthusiasm rarely equaled. And it is hoped that one or two years rest from such labor will enable him again to give the college the the benefit of active service. The Chair of Materia Medica and Therapeutics made vacant by the transfer of Professor Hay has been filled by the appointment of W. E. Casselberry, A.M., M.D., of this city. The new appointee is a man of classical general education, and he has availed himself of the best advantages to be had in this country and Europe in special preparation for the duties of his new position. He has given evidence of rare ability as a teacher, and will be a valuable addition to the Faculty of one of the best medical schools in this country.

THE TRI-STATE MEDICAL SOCIETY.—As this number is going to press, this important medical organization is holding its annual meeting in Indianapolis. An account of its doings will be found in our next number.

PROGRESS OF STATE MEDICINE.

INDIANA.—From the replies made to the questions proposed by the chairman of the Section on State Medicine, by Dr. T. M. Stevens, of Indiana, we learn that a law was passed by the legislature of that

State, creating a State Board of Health, and providing for the creation of county, town and city boards throughout the State, in 1881. At the time of making his report to the chairman of the Section, previous to the meeting of the Association in Cleveland, in June last, he states that ninety-one of the ninety-two counties constituting the State, had formed auxiliary health organizations by electing a county health officer. And 235 city and town boards had been organized prior to May, 1882. The health law of this State somewhat resembles those of Michigan and Wisconsin.

MISSOURI.—Dr. E. W. Schauffler, of Kansas City, Mo., reports in regard to the progress of medical and sanitary legislation, as follows:

Answers to first and second points:

The first legislation in Missouri in regard to a State Board of Health, or its equivalent, was an act passed at the session of 1883, and approved March 29, 1883. This law, under a general constitutional provision, will go into force July 1, 1883, so that until that time there can be no Board of Health. The act provides in general as follows:

For the appointment by Governor, with consent of senate, of seven persons, to constitute the "State Board of Health of Missouri;" members to hold office for seven years (of the first seven, however, four shall hold for two years and three for four years) Governor to fill vacancies, which shall be confirmed by senate at next session.

Five of board, at least, shall be "physicians in good standing, and of recognized professional and scientific knowledge, and graduates of reputable medical schools," and must be residents of the State for five years preceding. In appointments there shall be no discrimination made against the different systems of medicine "recognized as respectable by the laws of this State."

The board has general supervision over "health and sanitary interests of the citizens of the State." Their duty to recommend such laws to the General Assembly as they "deem necessary to improve and advance the sanitary condtion of the State." To make similar recommendations to municipal authorities of any city, or to county courts.

Board has power by majority vote to "establish quarantine regulations" against any city or district in the county when satisfied that any "malignant, contagious, or infectious disease exists" in such city or district to such extent as to endanger the lives of citizens of Missouri, having direct communication with such infected city, etc.; and may make rules to prevent introduction and spread of such disease, and may call on any executive officer to enforce such rules, and it is made duty of all executive officers of State, sheriffs, constables, etc., to assist the board to carry out provisions of this act.

Board to give public notice of such diseases being epidemic, and of rules established, and any persons "resisting by force" snch regulations, may be fined from $10 to $500 for each offense.

Board to have supervision of registration of births and deaths; shall prescribe such forms and recommend such legislation as shall be deemed necessary for a thorough registration of vital and mortuary statistics through the State. Secretary of the board shall be superintendent of such registration.

All physicians, accouchers, etc., to register names with county clerk, and shall, under penalty of fine of $10, report to county clerk within thirty days of occurrence, all births and deaths coming under their supervision, with certificate of cause of death, and such other facts as board may require.

When birth or death takes place without attendance of physician, etc., same shall be reported by certain relatives, under penalty as above.

Coroners shall do same in regard to deaths coming under their supervision,

Board to prepare and furnish to county clerks printed forms of certificates of births and deaths, as they deem proper, and such reports to be given to persons required to make reports.

County clerks to provide books for registration of above data, and at end of each year to send copies of same to secretary of board.

Meetings of board to be in January and July, and when expedient, four members a quorum; shall choose from own number president, vice-president and secretary, and may adopt rules and by-laws. Secretary's duties to be prescribed by board and this act, and salary fixed by board; also, shall receive his traveling and other expenses in execution of official duties, as shall all members of board.

Board shall take cognizance "of any fatal diseases prevalent among domestic animals of this State, and ascertain nature and cause" thereof, and publish results of research, with suggestions as to treatment and remedy therefor.

President of board has power to administer oaths and the board to take testimony.

Board to make annual report to governor, including such information on subjects within jurisdiction of board as may be thought useful by board, "for dissemination among the people," with suggestions for legislative action.

Six thousand dollars appropriated for expenses under this act.

There is nothing, so far as I can learn, in the statutes of Missouri declaring what diseases are held to be communicable or dangerous to public health.

NORTH CAROLINA.—To the questions of the Chairman of the Section, Dr. C. W. Woollen, of Randleman, N. C., makes the following brief reply:

DEAR SIR: I herewith enclose you a brief of what I regard as covering the ground, as per statement forwarded to me:

1st. We have a State Board of Health in North Carolina.

2nd. No changes during the past year.

3rd. We have local organizations in many of the counties, but the exact number cannot be given.

4th. No changes that I see noticed.

Small-pox and yellow fever occasionally on our sea coast.

5th. No new laws nor amendments of old laws in relation to vital statistics.

How can medical men *best* promote sanitary progress? First, by denouncing the use of *whisky* and *tobacco* in *toto*, together with many other vicious habits indulged in by the people. The family physician can do much, perhaps more than other persons, to improve the habits of the younger members of families he visits, as a physician, by calling their attention to those vicious habits which he may observe in any of them, that they may be corrected at once before the habit is fully formed.

Explain to them the terrible consequences that must necessarily follow the continued use of these dreadful poisons.

I do not feel prepared now to venture an opinion on the second part of the great question for consideration at our next meeting, at Cleveland, Ohio, June 5, 1883.

MINNESOTA.—The report from this State consists of a printed copy of the law passed by the Legislature, and approved March 3, 1883, entitled "an act relating to infectious and epidemic diseases, and to the preservation of the public health." The law contains thirty-one sections, and makes provision for a State Board of Health, and local auxiliary Boards throughout the State. If carried out efficiently, it should give the State a thorough health organization.

MISSISSIPPI.—The report for this State also consists of a copy of the recently enacted laws for the establishment of a State and local Boards of Health, and the protection of the people from the introduction of contagious and epidemic diseases.

BOOK REVIEWS.

ON THE PATHOLOGY AND TREATMENT OF CERTAIN FORMS OF NERVE WEAKNESS. By C. L. DANA, A.M., M.D., Professor of Mental and Nervous Diseases, etc., etc., etc.

This is a pamphlet of twenty-eight duodecimo pages, reported from the *Medical Record* of July 21, 1883. The author includes under the head of "Nerve-weakness" the following divisions or varieties of nervous disorder:

I. "*Nervousness.*—Characteristics: A general irritable weakness of brain, cord, etc., special neuro-mechanisms not seriously and chronically affected so as to react and increase the general trouble.

II. "*Neurasthenia* (nerve-enfeeblement proper).—Characteristics: 1, irritable weakness of nerve-centers and mechanisms; 2, or absolute weakness of same; 3, a localization of the disease in various neuro-mechanisms, causing special (gastric, sexual, etc.) forms of neurasthenia, which react to keep up the disease. The phenomena of lessened resistance, of enfeebled controlling centers enter into the disease more or less.

III. "*Hysteria* (a neurosis and psychosis combined, but more the latter).—Characteristics: 1, a 'shelving-off' of higher controlling powers; 2, greatly increased irritability (with weakness) of lower centers, especially (*a*) emotional, (*b*) spinal reflex, culminating in *convulsions;* 3, localized disturbances of vorious neuro-mechanisms (motor, cardiac, gastric, sexual, etc.), these disturbances being more acute, more variable, more pronounced than in neurasthenia proper; 4, special irritability of nerve-centers to sexual stimuli.

IV. "*Hypochondriasis.*—Characteristics: 1, special sensitiveness (*i.e.*, increased irritability) of emotional and perceptive centers to visceral and sensory impressions (morbid self-concentration); 2, lesséned resistance and overflow of visceral and sensory impulses."

In regard to the "fundamental changes, anatomical and chemical," in these so-called varieties of nerve-weakness or grades of neurasthenia, he says:

"Thus we can say with some confidence that underlying these disorders there are the following conditions:

1. "An imperfect tissue nutrition and metamorphosis, a kind of tissue-dyspepsia which results in making the nerve molecules unstable.

2. "Coincidently there is often, if not always, some derangement in vascular supply. This vascular change, I venture to say, is always an anæmia or a venous hyperæmia; true hyperæmia is not present, except incidentally and temporarily in chronic functional nerve-weakness, since it is always the correlative of increased functional power.

3. "Some permanent chemical changes are very likely present. These changes cannot be great as regards the nerve-elements themselves, for all tissues, as long as they act and preserve their identity, must have about the same composition. I doubt if the balance of the chemists will ever tell us what are functional diseases. But the chemical products of tissue activity may be altered, as shown by the character of the excretions."

These propositions certainly do not add much to the clearness or extent of our knowledge of the real pathology of a large class of very common nervous disorders. The word "dyspepsia" is sufficiently indefinite when applied to the functional disorders of the stomach, and it is still less comprehensible when applied to the atomic or molecular changes in the organized structures. It has seemed to us that many of the cases of nervous exhaustion or neurasthenia of the present day were genuine cases of morbid increase of the inherent or elementary susceptibility of the nerve structures, instead of either exhaustion of nerve force of vascular anæmia. In a large proportion of cases the predominant symptoms are the result of exaggerated impressions or effects of causes acting in only moderate or natural degrees of itensity. For instance, the stimulus of a degree of light, sound, or mental action, which in the natural state of nerve susceptibility would produce only pleasant and ordinary effects, in those cases of so-called neurasthenia produce effects so exaggerated as to constitute morbid phenomena, more or less distressing to the patient. To call such morbid excitability or increased susceptibility to impress-

ions in any part of the nerve structures either weakness or anæmia appears like perverting the ordinary meaning of terms. Neither do many of the patients usually included in this class show any of the ordinary indications of either defective nutrition or of blood impoverishment. We think there is need of greater discrimination between these cases of increased nerve susceptibility, and those presenting actual anæmia and weak or impaired excitability, if we would adjust treatment in such a way as to attain the highest degree of success.

The same author, in a brief paper read at the recent Annual Meeting of the American Neurological Association, gives the result of his experience in the use of hydrobromic acid in various nervous affections. In this paper, as reprinted from the *Journal of Nervous and Mental Diseases* for July, 1883, his clinical results are stated as follows:

"I have now used hydrobromic acid in the treatment of various nervous affections for nearly two years. At the Northeastern Dispensary the druggist informs me that the amount prescribed for the class of nervous diseases exceeds three pounds a month. I have used it in over fifty cases, of which I have notes, besides others.

These cases were:

Epilepsy	6	Chorea	2
Alcoholism	2	Insomnia	3
Headache (congestive)	1	Hysteria	3
Headache (malarial)	4	Post-hemiplegic cerebral (vascular) disturbances	3
Spermatorrhœa	2		
Vertigo	6	Senile melancholia	1
General nerve-weakness (nervousness)	6	Paralysis agitans	1
Various forms of neurasthenia (sexual, gastric, cerebral)	12	Total	52

"*Hydrobromic acid in epilepsy.*—When I first began to use hydrobromic acid in epilepsy, I was greatly encouraged by the result. The first of my six cases was a most obstinate one, a young man of 20, who had suffered from grand mal and petit mal since his 9th year. He had run the gauntlet of several nerve-clinics in the city, and had been assaulted by all the anti-epileptic remedies in the pharmacopœia. He was having attacks every day, sometimes several in the day. Under the acid he often went from one, two or three weeks without any fit. He was given the acid for six or seven months, in doses of ʒ iv-ʒv a day. After a time it began to lose its hold, and I added oxide of zinc. Finally the patient passed out of my care. He subsequently died in a convulsion.

"In three succeeding cases the disease was much milder, and the attacks came on only once or twice a month.

"In these cases the acid stopped the fits for a time at least, and as long as they were under my care. I subsequently lost sight of them.

"In two remaining cases there was no great benefit. Both of these patients suffered from both the grand mal and petit mal, and were old and obstinate cases. One of them when put upon very large doses of bromide of sodium did better than upon the acid. In the other the acid seemed to do nearly as well as the bromide. The convulsive attacks were nearly stopped, but the petit mal could not be controlled.

"I think that in epilepsy hydrobromic acid can not be used as a substitute for the bromides, except in the more controllable cases, when one wishes to keep up a mild sedative effect for a long time. Yet, it undoubtedly has an influence over the disease, and I do not yet feel certain that if given in equivalently large doses it might not be as efficient as the alkaline salts.

"*In chorea.*—Hydrobromic acid can be used advantageously as a medium for the use of arsenic or nux vomica, when it is desired to give a sedative. Doubtless an ordinary solution of arsenious acid in hydrobromic acid is quite as good as the much-vaunted formulæ of Clemens and Gilliford.

"*In alcoholism.*—The acid failed in two cases of acute alcoholism, the patients being on the verge of delirium tremens. Bromides and chloral subsequently gave relief.

With quinine to prevent cinchonism.—Hydrobromic acid is a good solvent for quinine, but it does not, according to my experience, prevent cinchonism, as has been asserted—certainly not in the small doses usually prescribed.

The best results which I have obtained from hydrobromic acid were in conditions of nervous irritibility, congestive headaches, post-hemiplegic circulatory disturbances, irritable heart, stomachal vertigo, where a general nervous and vascular sedative is indicated.

In most cases of insomnia it also acts well. I would say positively that I can give the acid with just as much confidence that it will produce nervous sedation as when the alkaline bromides are prescribed.

Its advantages are that in moderate doses it is not disagreeable; it does not constipate, or irritate the stomach; it may be given when an acid is indicated for the stomach. It can be conveniently prescribed with iron and tonics. Finally, in the largest doses, long continued, I have never seen any sign of bromism or any disagreeable constitutional effect, other than some drowsiness. A disadvantage is that when very large doses are to be administered, the amount of acid to be taken is disagreeable."

THE COLLECTIVE INVESTIGATION RECORD. Edited for the Collective Investigation Committee of the British Medical Association. By PROF. HUMPHREY, M.D., F.R.S. Chairman; and F. A. MAHOMED, M.B., F.R.C.P., Secretary of the Committee. Printed and published by the British Medical Association, 161A, Strand. July, 1883. Price 2s.

This is the first number of a record designed for embodying the results of the collective investigation work now being prosecuted on a systematic plan in Great Britain, the prominent features of which were presented in our editorial columns of a recent number of this JOURNAL. The present number of the *Investigation Record*, contains 190 pages, embracing a short history of the Collective Investigation movement, addresses by Sir W. Gull and Sir James Paget, a Report on the Communicability of Phthisis; preliminary Reports on Acute Pneumonia, on Chorea,

Acute Rheumatism, and Diphtheria; communications on "A calculation of the probability of the accidental and fatal incidence of phthisis upon both husband and wife," and on "The collective investigation of disease," together with several other items of interest, to some of which we shall recur hereafter.

MASSAGE; ITS MODE OF APPLICATION AND ITS EFFECTS. By DR. DOUGLAS GRAHAM, of Boston, Mass. Reprinted from the *Popular Science Monthly*, October, 1882. New York: S. H. Vail & Co.

This is a well written plea in favor of massage as an important remedy in the treatment of certain chronic morbid conditions, and the necessity of distinguishing it from mere indiscriminate rubbing. Though written more particularly for non-professional readers, it may be read with profit by all. It is a pamphlet of 17 pages.

WHAT IS THE RATIONALE OF TRACTION AND COUNTER-TRACTION IN THE TREATMENT OF HIP-DISEASE. By A. B. JUDSON, M.D., Orthopædic Surgeon to the Out-Patient Department of the New York Hospital. Reprinted from the *Medical Record*, May, 1883, pp. 12.

THE FIXATIFE POWER OF TRACTION, IN THE TREATMENT OF HIP-DISEASE. By A. B. JUDSON, M.D., etc., etc. Reprinted from the *Medical Record*, July, 1883, pp. 17.

These two pamphlets from the pen of Dr. Judson, present an able and interesting discussion ot the important practical points indicated by their titles.

BOOKS AND PAMPHLETS RECEIVED.

Studies in Biological Laboratory of Johns Hopkins University.

Report Pennsylvania Hospital.

A Tracheotomy Tube for Gradual Withdrawal. By H. F. Hendrix.

Proceedings American Pharmaceutical Association, 1882.

Transactions of the Medical Society of Pennsylvania, 1883.

Transactions of the Medical Society of Tennessee, 1883.

Report on Diseases of Women from the First Congressional District. By R. J. Munn.

Nerve Inhibition. By H. O. Thomas.

Report of the Surgeon-General of the Navy, 1881.

MEDICAL SOCIETY PROCEEDINGS.

STATE MEDICAL SOCIETY OF WISCONSIN.

An adjourned meeting of the State Medical Society of Wisconsin was held in the city of Milwaukee on the 4th, 5th and 6th of September. This meeting was, to all intents and purposes, the thirty-seventh annual session of the Association, which should have been convened in May last, but was postponed to the above mentioned time.

Dr. T. P. Russell, President of the Society, was absent upon a European tour, and the usual presidential address was therefore dispensed with. Dr. D. Mason, of Milwaukee, Vice-President, presided.

Dr. J. S. Walbridge, of the Committee on the Practice of Medicine, made a report which dealt more especially with the forms of fever prevalent in Wisconsin and its vicinity. He claimed that they were chiefly malarial in type, even though such symptoms as intestinal hæmorrhage might occur in their course, and post-mortem examination might reveal ulcerated peyerian glands. Reference was made at some length to the means employed in treating the fevers in question, quinine and the cold sponge bath being apparently those in which the reader had most confidence. The thermometrical indications in each case were to be carefully regarded, but caution must be exercised in respect to the instrument used, some of the clinical thermometers in the market being very untrustworthy.

Dr. Walbridge considered it the duty of the general practitioner, who had but few facilities for entering upon the investigation of the more profound problems offered by pathology or physiology, to note and record for the benefit of his professional brethren the effect of therapeutic agents, for the observation of which his opportunities are many.

The most important field of laboratory research at present is the microscopic, and, by reason of the revelations now being made therein, it seems possible that our whole system of therapeutics will be profoundly modified in the near future; that the study of the various forms of zymotic disease will be for the first time placed on a scientific basis, and preventive medicine will take a higher place than it has ever yet assumed in the estimation of the practical physician.

Dr. Senn thought that whenever a post-mortem showed ulcerative change in Peyer's patches the fever was typhoid in character, and that there was more danger of mistaking typhoid fever for fever of malarial type than of supposing a malarial case to be one of typhoid. In children the typhoid fever was the more common.

Koch has proved that the way in which bacilli or micrococci act is by producing a change in the white blood corpuscles, by which change their adhesive powers are increased, and embolism and metastatic abscesses are produced.

Such anti-pyretics as quinine, salycilic acid, etc., produce the reduction of temperature by retarding tissue metamorphosis. Kairin was among the most valuable of the anti-pyretics, but its great cost at present was an obstacle to its general employment.

Dr. Stansbury agreed with Dr. Senn in the opinion that typhoid fevers were more common than those of malarial type in the Northwest, but thought that, especially in the milder cases, all the characteristics of true typhoid were not present. He thought that the non-malarial character of the disease was demonstrated by the fact that quinine had but little influence upon its duration. He had found that an

expectant form of treatment gave better results in his own personal practice than would be obtained from any active measures such as large doses of quinine, etc.

Dr. Manley had used quinine in large doses with decided advantage. In one instance he had given 20 grs. at night to a boy aged 13 years, in whom the premonitory symptoms of scarlet fever in violent form were present, and had repeated the dose on the following morning and had cut the disease short thereby.

Dr. Wenzel questioned the propriety of using quinine in such doses as 40 and 50 grs; he thought there might even be danger to life; certainly there was risk of permanent injury to the hearing.

Dr. W. considered the prevaling type of the fevers most often seen in the Northwest to be typhoid, or low, continued fevers. He did not think that malaria in this latitude amounted to a great deal, because the summer heat was not sufficiently prolonged or sufficiently intense to develop the malarial germs. Among the anti-pyretics he thought that digitalis was entitled to a very high place, and that it had particular value in bad cases of typhoid or continued fever.

Dr. Steele thought that, though there might be a tendency to the increase of typhoid in sections of the country where the population was extending and the climatic changes incident to cultivation of the soil were going on, typhoid was a very uncommon disease in his own section of the State. He considered the type of the prevalent fevers in Northern Wisconsin to be malarial, and that they might be often quickly broken up by the early use of quinine in doses of 10 or 15 grs. daily.

Dr. Day said, recurring to what Dr. Walbridge had said in regard to the use of cold water sponging as a means of lowering temperature, that in his own practice he preferred to use hot or warm water for that porpose, having found that when cold water was employed execssive reaction was liable to occur.

Dr. French had doubts of the utility of cold water sponging so far as the reduction of temperature was concerned. By means of a cold bath prolonged for an hour, he had brought the temperature down in one case from 105° to 103° permanently. He agreed with those who considered the malarial form of fever as being comparatively the more frequent in occurrence.

Dr. Barnett could not admit that typhoid fevers were rarely or never seen, but neither could he agree with those who classed all of our low continued fevers as being of typhoid type. He thought that remittents were the more frequent in occurrence.

Dr. Davies believed that a change was taking place in the type of fever generally. Typhoid was now seldom seen in his neighborhood, whereas, fifteen years ago, it was very prevalent. Remittents he often met with. He thought that he might in the aggregate use as much quinine as other physicians, but he did not favor the enormous single doses he had heard mentioned.

Dr. Brett had seen in the course of eleven years' practice at Green Bay, many cases that had all the characteristics of typhoid, while during the same time he had seen but a single case of typical malarial fever.

Dr. Dodson had had many typical instances of typoid, but thought that almost all kinds of sickness were modified more or less by malarial influences. He had no fear of large doses of quinine, having given from 45 to 60 grains in two doses with only a half-hour interval between them, and had repeated the same treatment on the second day if the fever rose to a dangerous height.

Dr. Manley considered that true typhoid fever often occurred, though it might be that *well-marked typicäl* cases were comparatively rare. In his own practice he had seen cases which he thought could be traced to the use of infected water for drinking, and thought that such use was quite common.

Dr. Hoyh was familiar with typhoid fever as it occurred in Norway, where malaria is unknown, and had, during a practice of 14 years in La Crosse, frequently seen cases of typical typhoid fever, identical in all respects with the disease as seen in Norway, the identity being further established by post mortems, while he could not recall a single case of distinct remittent fever. He thought typhoid contagious, and considered that quinine had little if any value in its treatment.

Dr. Mann, of the Committee on Practice of Medicine, reported a case of typhoid fever followed by an enlargement of one leg which presented all the symptoms of phlegmasia alba dolens. The swelling was attended by great pain, particularly along the track of the femoral vein. Pneumonia also supervened, but the patient finally recovered.

Dr. Senn thought that the swelling in such instances was due to thrombosis of the femoral vein, caused by a deficiency in the *vis a tergo*, while a septic phlebitis produced the condition known as "milk leg."

Dr. Barnett remarked that Stokes considered that such swellings of the leg as that reported by Dr. Mann were exactly the same as the swellings which sometimes follow parturition, and said that Stokes had actually called both conditions phlegmasia alba dolens. Dr. Barnett had seen such cases as Dr. Mann described.

"The Pathology and Morbid Anatomy of Tuberculosis," was the subject of a communication presented at the meeting of 1882 by Dr. Senn, and it was decided at that meeting to postpone the discussion of the subject to the present session. Dr. Meacher, in opening the discussion, said that pathologists were yet at variance upon the question whether tuberculosis itself were inherited or only a predisposition thereto, and that the best clinical observers were as yet in doubt. In a recent number of the *Lancet* was an article, in which the writer said that experience does not teach us whether tubercular disease is inherited, or whether the soil is simply made ready for it. In some cases it seems to break out after many years and without exposure.

Dr. Senn said that Koch had demonstrated the cause of tuberculosis by actual experiment; that this inciting cause is a bacillus, which induces a specific inflammatory process. There may be an hereditary

predisposition, but this may be successfully resisted if the general system be robust; while, on the other hand, a fertile soil is ready for the occupancy of any tuberculous bacilli that may find entrance, if the system generally be debilitated. Such hereditary predisposition consists in a peculiar anatomical arrangement of cells. The bacillus, or micrococcus, enters the white corpusclus of the blood, where it effects a deleterious alteration of character, which determines a specific inflammatory process, produces embolus, and favors local congestion.

From the Committee on Surgery, Dr. Meacher presented a report of a case of lithotrity, and a paper on Antiseptics. Dr. Meacher considered the best antiseptics to be carbolic acid, iodoform, and corrosive sublimate. He also called attention to the value of absorbent cotton as a surgical dressing. He did not attach any very great importance to the carbolized spray, even in operations in which some surgeons thought it indispensable, and stated that the results of his own practice justified its omission.

Dr. Binnie reported a case of strangulated female hernia, which was operated npon with the result of forming an artificial anus. The patient made a good recovery with the closure of the opening in the course of three months.

Dr. Binnie favored early operation in similar cases before the strength of the patient was exhausted by efforts at reduction. Such early operation, the subject being otherwise in good condition, was attended with less risk than an operation after prolonged taxis.

Drs. Stansbury and Reynolds considered that reduction was usually practicable, especially when opiates and anæsthetics were used, and preferred not to operate until it was certain that taxis was useless.

Dr. Catlin had used an elastic rubber bandage with success in reducing an obstiuate hernia. The prolonged and equable pressure excited by the bandage caused reduction after opiates, etc., etc., had failed of effect.

Dr. Brett had tapped both the sac and the knuckle of intestine with the needle of a hypodermic syringe, and had afterwards succeeded in effecting reduction. In one case after all other means had failed, he had inserted his finger nail under the constricting ring and, by either stretching, or slightly tearing some of its fibers, had returned the intestine.

Dr. Stansbury, of the Committee on Gynæcology read a paper on "Rest, the Great Essential to Complete Involution," taking the ground that the process of involution is governed by laws as fixed as are those which govern pregnancy, and that by enjoining absolute rest in bed for a time sufficiently prolonged to admit of the perfect accomplishment of involution, many troublesome cases of uterine disease following on parturition would be avoided.

Dr. Barnett, from the same committee, presented a paper on "Mechanical Gynæcology," claiming that the pessary has a much more extended field of usefulness than is generally admitted.

Dr. Wenzel, chairman of the Committee on Pathology, read a paper on "The Relation of Diphtheria and Erysipelas to Puerperal Fever," some of his conclusions being as follows: Puerperal fever bears the same relation to diseases of the puerperal period that hysteria bears to diseases of the nervous system in the female. Septic infection may cause puerperal trouble, but the germs of any disease cannot produce puerperal fever, pure and simple. Zymotic diseases affecting the puerperal woman may become virulent or malignant, but they retain their entity and are the same when under similar conditions in another patient, or in the same patient at a different time. Diphtheria is a grave constitutional disease which affects, principally, persons under 16 years of age: puerperal fever, so-called, is impossible before puberty, and the so-called diphtheritic patches accompanying puerperal diseases may be found also in other lesions in which all the other symptoms of diphtheria are absent. No direct diphtheritic infection has been observed to produce anything else than diphtheria, and if a parturient patient became infected, the disease was diphtheria, and not puerperal fever. Erysipelas may develope in the puerperal woman and prove rapidly fatal, without external manifestations. The diagnosis between erysipelas in such cases and puerperal fever is extremely difficult and often impossible during the life of the patient. That erysipelas has been followed by dangerous or fatal puerperal disease is affirmed, but the number of observations is yet too small to warrant positive conclusions, and that the puerperal woman has the power to change the entity of any disease into any other disease is extremely doubtful and requires proof.

A second paper on the same subject was read by Dr. Clark, also of the Committee on Pathology, who thought that as yet the origin of all three diseases—diphtheria, erysipelas and puerperal fever—is as yet uncertain. The parturient condition was one in which the system was badly able to resist effectually the attacks of disease in whatsoever form they might be made, and any of the putrefactive bacilli, which might find entrance into the system of the puerperal woman, would find there a fertile soil and abundant nutriment. The fact that the worst cases of puerperal fever occur within two or four days after labor, should be kept in mind, and since during that time the womb was in a condition best fitted for the absorption of poisonous matters of whatever kind, the utmost care should be taken to render the lochial discharge aseptic, by the use of carbolized gauze, antiseptic absorbent cotton, etc., during the whole of the week immediately following labor.

Dr. E. W. Bartlett presented a paper on "Color Blindness," and the dangers to the public arising therefrom. A resolution was adopted as a result of this paper, and the discussion following it, under which a special committee was appointed, the duty of which was declared to be the collection and dissemmination of information concerning color blindness, and the losses of life and property caused by it, the presentation of such information to the public generally, and the securing of and from Medical Societies and other bodies, which shall tend to obtaining proper legislation on the matter. Drs. Bartlett, Hoey and Brett were appointed a committee for the purpose.

Dr. Bartlett presented another paper in which he described a modified operation for cataract.

Dr. Catlin reported a case of post-mortem examination, where death was supposed to have occurred from bilious colic. The real cause, however, was discovered in an enlarged, ulcerated and ruptured gall bladder in which were impacted gall stones to the number of at least two hundred.

Dr. Manly made report of a case in which the astragalus had been removed to relieve disease following upon dislocation. The foot was a little inverted, but symmetrical in appearance. The wound had healed kindly. Dr. M. exhibited the bone which had been removed, and it was examined by many members with great interest.

Dr. Epley read a paper upon Ergot and its Therapeutic value, claiming that this drug was entitled to rank in usefulness with iron, opium and quinine. It has great power in arresting hacking, irritating coughs, particularly when a relaxed condition of the mucous-membrane exists in connection therewith, and has proven of marked value as an internal hæmostatic. Its most important power, however, lies in its ability to arrest promptly all acute local inflammations, especially in the respiratory organs, and where it will abort one pregnancy it will cut short ten pneumonias.

Drs. Manley, Meacher, Binnie and Bartlett were able to endorse several of the positions taken by Dr. Epley from the results of their own practice, and the general feeling in the discussion that followed the reading of the paper was favorable to the views of the writer.

The following resolution was adopted:

Resolved, That in consideration of the advances made as to a knowledge of the causes of consumption, and of the now known infectious character of the disease, we use all the means in our power to have the phthisical members of families as much as possible separated from the healthy members, and also that we recommend the State Board of Health to take means to have such persons separated from intimate association with the well in our public institutions.

The following officers were elected for the coming year. President—Dr. N. M. Dodson, of Berlin; Vice Presidents—Drs. E. W. Bartlett and G. W. Jenkins; Assistant Secretary—Dr. Wm. Thorndike. Censors—Drs. Mason, Senn and Thorndike. Dr. Reeve, of Appleton, is permanent Secretary.

Twenty-seven gentlemen were admitted to membership, and the Society adjourned to the first Tuesday in June, 1884, the session to be held in the city of Milwaukee.

A characteristic feature of the meeting, and one which made it one of the most profitable held by the Association, was the large amount of time given to discussion of the various topics suggested by the papers presented.

REPORT OF THE SECRETARY OF THE SECTION ON DISEASES OF CHILDREN.

FIRST DAY.

CLEVELAND, O., June 5, 1883.
COUNCIL CHAMBER, CITY HALL.

Section of Diseases of Children convened at 2:30 P. M.

The Chairman, Dr. Blount of Indiana, and the Secretary, Dr. Sears, of Texas, being absent, a te porary organization was effected by calling Dr. Charles Warrington Earle, of Chicago, to the Chair, and Dr. E. L. Boothby of Wisconsin to the Secretary's desk. None of the papers in regular programme being present, a volunteer paper was read by Dr. Earle on Cephalo Hematoma In the New Born. This subject was discussed by Drs. Reed of Cincinnati, Harris of Virginia, Lee of Baltimore and Boothby of Wisconsin.

On motion voted to refer the paper to the committee on publication.

No further business being brought up, the section adjourned till 2:30 P. M. of Wednesday.

SECOND DAY.

Section called to order at 2:30 P. M. by Dr. Earle, of Chicago. He introduced the regular chairman, Dr. Blount, of Indiana, who assumed the chair, and Dr. Boothby, of Wisconsin, was chosen Secretary for the balance of the meeting, in place of Dr. Sears, of Texas, who continued absent.

The paper on the Unity of Membranous Croup and Diphtheria, by Dr. Harris, of Virginia, was read, and a very interesting and earnest discussion ensued, participated in by Drs. Earle, of Chicago, Christie, of Iowa, Lee, of Baltimore, Sheehan of New York, Freeman, of Ohio, Boothby of Wisconsin, Ulrich, of Pennslvania, and many others. Voted to postpone further discussion on the subject until Thursday. This vote was reconsidered so far as to allow Dr. Harris the reader of the paper, to close the discussion for to-day, as he was obliged to leave, and could not be present at the next session of the Section. Dr. Harris' paper was referred to the Committee on Publication.

Dr. Alex. Y. P. Garnet, of the District of Columbia' read a paper on Epidemic Jaundice Among Children. The paper was discussed by Drs. Lee, of Pennsylvania, Harris, of Connecticut, and Lee, of Baltimore. The paper was then referred to the Publication Committee.

A volunteer paper on the Surgical Treatment of Purulent Pleuritic Effusions in Children, by Dr. W. H. Meyers, of Indiana, was read, discussed and referred to the Committee on Publication.

A second volunteer paper by Dr. C. W. Earle, of Chicago, on a Plea for Pleasant Medication and a more Thorough Study of Infantile Therapeutics.

This paper elicited considerable discussion, after which it was referred to the Committee on Publication.

Dr. Boothby, of Wisconsin, was excused from reading his paper on Croup and Diphtheria—their Unity or Duality, as the paper of Dr. Harris, of Virginia, covered the same ground, and embodied similar views.

The Section then adjourned until 2 P. M., Thursday.

THIRD DAY.

The Section was called to order by Chairman Dr. Blount, of Indiana, at 2:30 P. M. Minutes of yesterday's session read, corrected and then approved.

The first paper was read by Dr. Good, of Indiana,

on Dentition. Discussed by Goodman, of Illinois, Earle, of Chicago, Rud, of Ohio, Freeman, of Indiana, Boothby, of Wisconsin, et al. After discussion and reference to Committee on Publication, Dr. Casebeer, of Indiana, read an interesting paper on Pædiatric Medication. Discussed by Drs. Sennet, of Ohio, Ulrich, of Pennsylvania, Von Cline, of Ohio, and others. The paper was referred to the Committee on Publication.

Moved by Dr. Earle that Dr. Casebeer read a paper by title which he has not thoroughly prepared, the title of which is Pædiatric Therapeutics and its Relation to General Therapeutics; that he be asked to complete the same and forward to the Section for publication in the transactions, subject to the action of the Committee on Publication.

Dr. Norman Teal, of Indiana, read a volunteer paper on Infantile or Essential Paralysis. Discussion on the same by Dr. Meyers, of Indiana, Hyat, of Iowa, Ulrich, of Pennsylvania, Lee, of Baltimore, Snow, of Michigan. On motion, paper was referred to Committee on Publication.

As the papers on Diphtheria, by W. F. Sharrer, of Indiana; on Hereditary Syphilis, by G. W. Burton, of Indiana; on Cholera Infantum, by B. W. Ryan, of Indiana; Acute Inflammation of the Lungs in Children Under Six Years of Age, were not present, neither the authors of the same, the subject of Diphtheria, Its Varieties and Variations, was taken up and discussed by E. L. Boothby, of Wisconsin; by Dr. Reed, of Iowa; Dr. Sheehan, of New York; Dr. Ulrich, of Pennsylvania; Gallagher, of Pennsylvania; Lee, of Maryland, and Dr. Hyat, of Iowa.

Dr. Hyat having spoken his allotted time, it was extended, to enable him to finish.

The time having been consumed, further discussion was postponed.

The Section adjourned, after a session of five hours.

E. L. BOOTHBY,
Secretary pro tem.

DOMESTIC CORRESPONDENCE.

PHILADELPHIA LETTER.

(For THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.)

Our medical colleges and societies have again resumed their usual activity with the return of fall. On Monday, September 10, the University, the Medico Chirurgical, and the Jefferson began their preliminary course of lectures which will continue throughout the month. The faculty of Jefferson Medical College, in order to afford every facility for a higher medical education, have organized a post-graduate course. This course, which is now being perfected, will consist of five terms of seven weeks each, and will begin October 1. The physicians selected for that course, and the subjects taught by them respectively, are as follows:

Ophthalmology, Prof. Wm. Thompson; Otology. Drs. L. and Chas. Turnbull; Gynæcology, Drs. F. H. Getchell and J. Ewing Mears; Physical Diagnosis, Diseases of the Chest, Dr. J. C. Wilson; Orthopædic Surgery, Dr. O. H. Allis; Normal and Pathological Histology, Dr. Morris Longstreth; Diseases of Children, Dr. O. P. Rex; Nervous Diseases, Dr. J. T. Eskridge; Laryngology, Drs. Sajous and Jurist; Urinary Pathology, Dr. J. S. Neff; Medical Chemistry, Dr. G. M. Ward; Practical Pharmacy. Dr. S. M. McCollin; Experimental Physiology, Dr. A. P. Brubaker; Diseases of the Skin, Dr. J. V. Shoemaker; Botany, Materia Medica, and Experimental Therapeutics, Drs. A. K. Minich and A. R. Rinear.

At a stated meeting of the Obstetrical Society of Philadelphia, held in the hall of the society, 13th and Locust streets, the evening of Sept. 6th, Dr. Wm. T. Taylor reported a case of face presentation with eclampsia. The patient was a primipara, age 23, and, as she had been enjoying good health during her gestation, he had no reason to expect trouble. At 6:30 o'clock in the morning he was called to the labor; found the pains slow, the os slightly dilated, and was able to diagnose a face presentation with chin toward the sacrum. As the patient was quite restless he gave her a chloral mixture and left her and went home for breakfast. At 8.30 o'clock he was called hurriedly by the husband, who reported that his wife had had a fit, and while he was in the room soon after his arrival at the house of the patient, she had two convulsions in rapid succession. The face was red, the head drawn to one side, and the convulsions attended with all the usual symptoms of eclampsia. He immediately sent for some chloral and an injecting appartus, and injected a dram of chloral dissolved in four ounces of water into the rectum which controlled the convulsions. Examination now revealed the os dilated, the head high up, and the face presenting as before. An attempt was now made to rotate the head into a natural position with occiput anterior, and was successfully accomplished. The patient being restless, another injection of chloral—same strength as before—was administered. The head was then brought down the inferior strait, the labor left to nature, and soon a still-born child was born. There was no more eclampsia. The patient was now unconscious from the chloral, but finally awoke refreshed. Later in the afternoon, however, she was somewhat restless, but the next morning her condition was good in every way except a slight abdominal tenderness. No further trouble was experienced. Dr. Taylor particularly referred, in this connection, to the virtue of chloral in controlling puerperel convulsions of a nervous character.

In discussing this report, Dr. Albert H. Smith suggested that the discussion be particularly directed to the subjects of the management of face presentation and convulsions. He considered Dr. Taylor fortunate in being able to restore the position in the case reported from a presentation of chin posterior to that of the occiput anterior position, and retaining it thus during the application of the forceps. This he had found in his experience a very difficult thing to do. He thinks there is something very mysterious in the ætiology of face presentation. Though not difficult to understand why the face comes down, secondarily, from a gush of water in partial flexions for

example, or in marked lateral obliquitus of the uterus the cause of primary face presentation is involved in mystery. In the majority of cases of face presentation with chin posterior, it is difficult to force down the occiput and fix it there long enough to deliver, or while forceps are applied. In fact, in only two cases did he succeed in doing it. He thinks that there are no cases where medlesome midwifery is to be condemned more than in the management of face presentations, and his experience has been that in most cases nature is able to effect a delivery without manual interference. Nature is very slow in her process of extension, descent, rotations and flexions in cases of this kind, and caution should be used not to force the chin down too rapidly, but to imitate nature by being slow in the operation. The urgent reason for interfering at all is in case of failure of the child's pulse, in which case it becomes often necessary to take the risk, or from some alarming condition of the mother. But if the pulse is good and everything favorable, it is always better to leave the case to nature, especially if the chin is anterior. It used to be taught that the child could not be born with chin presenting and posteriorly, but now it is known that this is altogether possible, as nature in a large portion of cases will rotate the chin upon the lateral pelvic wall to an anterior position, and the birth is then altogether natural.

Dr. Taylor replied that in his case the child was well up above the superior strait, and the child was small, and dead before delivery.

Dr. B. F. Baer asked whether it would not be better in cases of face presentations with chin posterior, and the child above the superior strait, to perform version by the feet rather than to wait for nature to accomplish the delivery, and run the risk of having the child forced into a position where birth was impossible.

To this Dr. Smith replied that he did not mean to have Dr. Taylor think that he spoke in criticism of his procedure in the case reported, for he considered it perfectly right and proper under the circumstances. Neither did he say that manual interference should never be practiced after failure with its effort to restore the head in flexion, as the waters will then be discharged from around the child, the head partially engaged in the brim, and the uterus firmly contracted, being stimulated by the pressure and movement of the hand in the unsuccessful manipulation.

The danger to the child is greater, also, in erosion under these circumstances, on account of the necessity of either bringing it down in the stage of evolution as a posterior position of the dorsum, or, to avoid that, of rotating it upon its own axis, either of which, in a case already prolonged and complicated, would be a serious procedure.

But as a general rule he was entirely opposed to version, as being fraught with danger to both the mother and the child, and it should only be performed in clearly defined cases. There is danger of rupturing the uterus when it is firmly contracted down upon the child, in any attempt to turn it. Nature will usually rotate the chin anteriorly, or it may be accomplished with very little aid from the hand of the accoucheur.

Dr. J. J. Allen fully coincided with the views expressed by Dr. Smith, and went further than that in his own opinion. He thinks we ought not to perform version in any case merely to save the child, and only for the sake of saving the life of the mother does he consider the proceeding justifiable.

Dr. R. P. Harris said that he thinks Dr. Smith's position represents the one now quite generally adopted by obstetricians, and referred to his remarks upon the subject in Playfair's work.

Dr. Allen rose to explain that by version he means a complete turning of the poles of the child, and he does not include under that term partial turnings to obtain better positions, which often may be practiced with advantage.

Dr. Baer said that version by the feet was generally taught in the Philadelphia schools and by all authors, including Playfair, and that when the uterus is not contracted it seemed the most rational procedure. He criticised Dr. Smith as taking the position that a mento-posterior position is a natural labor, when in fact it is a most difficult labor, and may become impossible if let alone. He said that face presentations are said to be caused in some cases by the death struggles of the child, and suggested this as a possible explanation of the position found by Dr. Taylor in the case just reported. Dr. Taylor replied that the diagnosis was made out prior to the child's death, which did not happen, in his opinion, until his second visit, at which time, during an examination, he felt a sudden tremor of the child, and then pronounced it dead.

Dr. Smith replied to Dr. Baer's criticism, to the effect that he did not mean to say a face presentation, with chin posterior, was an *easy* natural labor, but, nevertheless, could be completed naturally in a majority of cases of multiparous women. He did not think he was prepared to go as far as Dr. Allen, but believes there are conditions where version should be performed to save the child.

HÆMOPHILIA. NOTES FROM PRACTICE; BY S. HARVEY LAMBERT, M. D., ASSUMPTION, ILL.

Mrs. R. K., aged 63, enjoyed general good health until she was 44 years old, when her menses became irregular and painful, for five years, and then ceased. Her health slowly returned, and remained good for about four years, when she was attacked with gastralgia, the pain recurring once a month for near a year, and, after six months rest, returned with renewed vigor.

About this time she noticed a small lump in her right breast just above the nipple, which, at times, would pain her at night.

July 20, 1882, Mrs. K. came under my observation, and said for the past six or seven years, she had had neuralgia of the stomach, and a tumor in her right breast. The neuralgia occurs irregularly, from twice a week to once a month, and, evidently, was due to chronic malarial poisoning.

The breast contains a firm, roundish, nodulated tumor, about the size of a hen's egg. The axillary glands are enlarged. She thinks the tumor has not

enlarged during the past five years, but states the glands in the axilla began to "grow" about two years ago.

On September 23, 1882, having missed her so-called neuralgia, she decided to suspend further treatment.

I now lost sight of her until April 16, 1883 (seven months) when I was called, and found she had been bleeding from the nose for about ten hours, and had lost one and a half pints of blood. By the 20th she was quite well; on the 25th she again lost near a quart of blood from the nose; on the 30th she had a severe hæmorrhage from the gums; May 6 she lost over a pint from the nose; same amount on the 9th; the 20th she vomited fully half a pint. From May 30 to August 21 she had six hæmorrhages from the nose, and lost from four ounces to one pint of blood each time.

August 29, at 4 o'clock, A. M., was called in haste and found her in a fearful tetanic spasm; August 30, very nervous and weak. September 2 she again lost one pint of blood. All along, there has been no evidence of cardiac disease, until to-day we have an anæmic murmur; liver and spleen somewhat enlarged; cachexia and emaciation marked.

These hæmorrhages are preceded by pain in her cancer, and a determination of blood to the head.

Notwithstanding, blood was once vomited, tenderness was not detected in her epigastrium, and, I think, must have been swallowed.

During the months of June, July and August, extreme prostration prevailed, with localized neuralgic pains over entire body. Temperature has fluctuated between 98° and 102° F. At this writing she is much stronger, and quite free from pain. Appetite fair; bowels rather costive.

I have carefully investigated her family history, and find it good. She states her parents died of old age, and were free from hereditary tendency to phthisis, cancer or bleeding.

She has two brothers living, and in good health, except each of them has a tumor, and has been advised by Dr. Penwell, of Shelbyville, Ill., to have no surgical interference. She has two sisters dead; one died from milk-sickness, the other from childbirth. Herself, was never pregnant.

As yet I have no comments, except to intimate that I firmly believe, where we have even a remote tendency to skin disease, or malignancy, continued malarial poisoning is likely to bring it out.

The treatment has been anti-malarial, tonic and astringent. Strict attention given to hygiene and general nutrition.

As ergot would promptly vomit her, I began the use of "Kennedy's Aqueous Extract of Pinus Canadensis," and find it has a positive effect in contracting dilated vessels and toning up the relaxed bowels.

Now, any suggestions of real merit the profession may favor me with will be thankfully received, and and due credit given in a report of progress and termination of the case.

The following letter, though written for the *Daily Springfield Register*, so fully expresses the views and expectations of a large proportion of the sanitarians of the present day, that we give it a permanent record.—[ED.]

MY DEAR SIR: I am this evening in receipt of your circular of inquiry, forwarded to me from Chicago, and in which you ask a brief statement of my views "as to the probability that this country will suffer from the threatened epidemic" of Asiatic cholera, and as to the precautions which should be adopted, etc.

I am reconciled to the fact that my "views" concerning such a probability are worth no more than, if so much as, those of the editor of a metropolitan newspaper, with his facilitics for judging of probabilities, by the other fact that epidemics are by no means unmixed evils. It was a recurrence of cholera epidemics which directly led to the first attempt at sewers in Chicago, and to the present system of water supply. It was the recurrence of yellow fever epidemics in Memphis which led to the sanitary regeneration of that city. It was the recurrence of epidemics of both diseases which resulted in the magnificent sanitary work, educational and practical, of the New Orleans Auxiliary Sanitary Association.

The salutary spur of an occasional epidemic outbreak seems to be necessary in order to secure any decent amount of attention to the care of the public health, at least while the sanitary schoolmaster is so much abroad as at present. In any prolonged exemption from such visitations, communities become lax, and gradually grow to tolerate conditions which result, directly or indirectly, in an enormously greater aggregate of mortality than that caused by any epidemic.

For example: The class of diseases to which Asiatic cholera belongs, and which are all more or less preventable, caused 5,136 deaths in an aggregate mortality of 13,234 in Chicago last year. In 1881 it caused 5,985 deaths out of a total of 14,101. This is an average of 40 per cent. of the total mortality. The last epidemic of cholera (1873) caused only 3,825 deaths in the whole country—nineteen States being invaded. There had been no epidemic cholera in the United States for six years previous, since 1866; but during those six years not less than 125,000 persons had been carried off by the group of diseases most closely resembling it.

The moral of these figures seems to me no less obvious than that of the tables in the report of the Health Department, recently issued. Take from this report the table of zymotic mortality by wards, and compute the ratio of this mortality to population. The result will furnish a very accurate index of the sanitary status of each ward. When the zymotic mortality is greatest there will be found the most overcrowding, the greatest amount of personal uncleanliness, the greatest want of sewerage, the most neglected scavenging, the most abundant and various filth, both surface and subterranean. Epidemic cholera might temporarily increase the death rate under these conditions, but the average mortality for a series of years would not be materially affected.

Enough, however, in this strain. I suppose there is no prosing nor prophecy so insupportably dreary

as that of the sanitary Cassandra. By way of amends let me offer the following series of propositions concerning Asiatic cholera, formulated in a report which I drew up in 1875 at the request of Surgeon-General John M. Woodworth, of the Marine hospital service, and under whose name it was published in the volume entitled "The Cholera Epidemic of 1873 in the United States."—(Ex. Doc. No. 95, H. R. XLIIId Congress, 2d session.) These propositions are based upon a vast mass of cumulative evidence collected by cholera students in both hemispheres, and were originally intended to bear solely upon the question of the exclusion of the disease from this country. They will be found, however, equally applicable to methods of stamping out the disease should it effect foothold, and to the personal protection of the individual:

I. Malignant cholera is caused by the access of a specific organic poison to the alimentary canal, which poison is developed spontaneously only in certain parts of India (Hindostan).

II. This poison is contained primarily, so fas as the world outside of Hindostan is concerned, in the vomit, stools, and urine of a person already affected with the disease.

III. To set up anew the action of the poison a certain period of incubation with the presence of alkaline moisture is required, which period is completed within one to three days; a temperature favoring decomposition, and moisture or fluid of decided alkaline reaction, hastening the process, the reverse retarding.

IV. Favorable conditions for the growth of the poison are found (1) in ordinary potable water containing nitrogenous organic impurities, alkaline carbonates, etc.; (2) in decomposing animal and vegetable matter possessing an alkaline reaction; (3) in the alkaline contents of the intestinal portion of the alimentary canal.

V. The period of morbific activity of the poison —which lasts, under favorable conditions, about three days for a given crop—is characterized by the presence of bacteria, which appear at the end of the period of incubation, and disappear at the end of the period of morbific activity. That is to say, a cholera ejection, or material containing such, is harmless, both before the appearance and after the disappearance of bacteria, but is actively poisonous during their presence.

VI. The morbific properties of the poison may be preserved in posse for an indefinite period in cholera ejections dried during the period of incubation, or of infection matter dried during the period of activity.

VII. The dried particles of cholera poison may be carried (in clothing, bedding, etc.) to any distance, and when liberated may find their way direct to the alimentary canal through the medium of the air—by entering the nose and mouth and being swallowed with the saliva—or, less directly, through the medium of water or food in which they have lodged.

VIII. The poison is destroyed naturally either by the process of growth or by contact with acids; (1) those contained in water or soil; (2) acid gases in the atmosphere; (3) the acid secretion of the stomach.

IX. It may be destroyed artificially (1) by treating the cholera ejections, or material containing them, with acids; (2) by such acid (gaseous) treatment of contaminated atmosphere; (3) by establishing an acid diathesis of the system in one who has received the poison.

For the non-professional reader the pith of these propositions is contained in the last two—the eighth and ninth. Nothing has since come under my observation to change the conviction arrived at, when these propositions were framed, namely: That the mineral acids may be relied upon as a certain means of preventing the spread of Asiatic cholera.

FRANK W. REILLY, M.D.

Springfield, Ill., Sept. 12.

NITRO-GLYCERINE AND DYNAMITE.

WASHINGTON, D. C., Sept. 12, 1883.

Dear Dr. Davis: Having seen in a recent number of the JOURNAL an article concerning the toxic properties of dynamite and nitro-glycerine, it occurred to me that it might be well to say that nitro-glycerine is one of the most dangerous poisons known. A single drop on the tongue of a cow will kill her instantly, and the poisonous property of this explosive, when applied to the surface of the body, is well known to those operatives engaged in its manufacture.

Now, dynamite is simply nitro-glycerine spread out upon the surface of the particles of an infusorial earth (*Kieselguhr*), which, by reason of its cup-shaped surfaces, allows a greater portion of the nitro-glycerine to be spread upon it, in proportion to its bulk, than any other substance at present known. It is thus seen that the nitro-glycerine is simply diluted when made into dynamite, and the latter still retains the toxic property of the original nitro-glycerine.

It therefore behooves those who desire to try the effect of dynamite upon their cases of cerebral anæmia to be sure that it is very dilute when administered, and very fresh, for nitro-glycerine is one of the most unstable compounds. Theoretically, it seems that small, continuous, and very dilute doses of dynamite ought to be a specific in cases of cerebral anæmia.

JOHN B. HAMILTON,

DOUBLE DISLOCATION OF THE HIP.

N. S. DAVIS, M.D., L.L.D., EDITOR JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

My Dear Sir:—In the weekly number of this journal, date of August 25, appears an article headed "Simultaneous Traumatic Dislocation of Both Hip Joints," by J. H. Packard, M.D. After reviewing the literature on this rare subject, he claims to have detailed all of the cases accessible. Permit me to invite attention to a case reported in the "Transactions, of the Pennsylvania State Medical Society," page 405, volume XXX—double dislocation, with fracture of the ascetabulum of the right side. While the accident most happily is rare, it is well to tabu-

late the cases that are reported, in order to permit the most favorable deductions to be made in favor of such treatment that secures the best results.

Very respectfully,

D. W. BLAND.

POTTSVILLE, PA., Sept. 15, 1883.

LATE RESUSCITATION IN APNŒA NEONATORUM.

EDITOR JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION:

I desire to collect information and statistics on the resuscitation of the asphyxiated new-born where prolonged efforts at restoration have met with success. The history of any such cases, with comments or opinions, from readers of this journal, will be thankfully received and acknowledged.

ELMER GLOVER, M.D.

Terre Haute, Ind.

CORRECTION.

N. S. DAVIS, M.D., LL.D., EDITOR,

My Dear Sir: Please make the following corrections in my eye article in JOURNAL AMERICAN MEDICAL ASSOCIATION, No. —, Sept. 8, 1883:

Page 258, second column, third line from bottom of page, read $\frac{20}{100}$; page 258, fourth line, read $\frac{13}{100}$ and $\frac{50}{100}$; in second column, same page, eleventh line, read $\frac{50}{100}$.

H. CULBERTSON, M.D.,

Zanesville, Ohio.

NECROLOGICAL.

HOPPER, H. A., M.D., the son of a prominent physician of Bergen county, N. J., was born August 8, 1824; died at his residence in Hackensack July 8, 1882. He was graduated from the College of Physicians and Surgeons, New York City, in 1847, and soon after settled in Hackensack, N. J. His family position, courtesy of manner, active devotion to professional duty, and great skill, soon commanded a lucrative practice extending over a large section of country. He was the president and an active member of the Bergen County Medical Society, and would probably have been appointed president of the State Medical Society had he lived until its next annual meeting. As president of the New Jersey Sanitary Association he delivered a valuable address a year before his death. Many valuable contributions were made by him to this Association, and to the State and County Societies. He was president of the local Board of Health, and was active in promoting the public welfare. His hearty interest in all that concerned the medical profession, his kindness of heart, and zeal with knowledge, combined to make him popular. He was a man of large experience, decisive in counsel, and in action could always be relied upon as a man clear convictions and of judgment. An outspoken Christian life adorned his professional character, and, while devotion to his profession was untiring, he was always prominently interested in all good works. Although an occasional sufferer from attacks of inflammatory rheumatism, no serious internal lesion manifested itself until a few months previous to his death. Young in feeling and vivacious always, he seemed still among the juniors, and worked at every new department with the interest of a student. His decease is mourned by an entire community and by the whole profession of the State. E. H. M.

Forwarded by Dr. B. A. Watson.

WAKEFIELD, HORACE POOL, M.D., of Leicester, Mass., was born in Reading, Mass., January 4, 1809; died at his residence in Leicester August 30, 1883. He was the son of Deacon Caleb and Matilda (Pool) Wakefield. The Wakefields were of Welsh origin, and the Pools English, and among the first settlers of Reading. He prepared for college at Bradford, Mass., and at Pinkerton Academy, Derry, N. H., and graduated in letters at Amherst College, and in medicine at Dartmouth in 1836. He began practice at Oakham, Mass., and met with good support, but in 1844 was induced to remove to Reading, and continued to practice until 1866. He had served in the Legislature while a resident of Oakham. In Reading he served as Town Clerk in 1857 and 1858, and was also a member of the School Committee, President of the South Reading Insurance Company, and of South Reading, Reading and Stoneham Gas Company. Dr. Wakefield was State Senator in 1862 and 1863. He was at one time President of Savings Bank and Director of the Palmer National Bank. In 1879 he purchased the "Stonewall farm," in Leicester, and removed to it, where he remained to the time of his demise. He was a member of the Massachusetts Medical Society, and one of the councillors and one of the former vice-Presidents; President of the Middlesex East District Medical Society, before which he delivered the annual address in 1867. Also a member of the American Medical Association since 1858. In 1838 Dr. Wakefield was married to Abigail Pratt, of Reading, who died in 1850. A few years after this he married Mary B. Cristy, of Johnson, Vt., who, with one daughter, survives him.

J. M. T.

LAWTON, SANFORD, M.D., born at Monson, Mass., October 16, 1832; died suddenly of disease of the heart while visiting friends at Scranton, Pa., July 23, 1882.

Having acquired a good preparatory education, he studied medicine, and, attending lectures, graduated M.D. at Yale Colledge in 1852. He began practice at Pittston, Pa., where he labored successfully for fifteen years. In 1870, for the purpose of better facilities for educating his children, and secure greater comforts for his aged parents and an invalid sister, he removed to Springfield. Here he acquired a remunerative practice. He was for three years president of the Hampden District Medical Society. He was also for some years a member of the School Committee, and held other offices of honor and trust.

From data furnished by Dr. H. O. Marcy.

J. M. T.